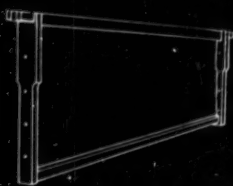


AMERICAN BEE JOURNAL

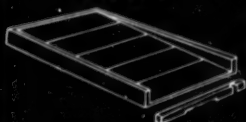


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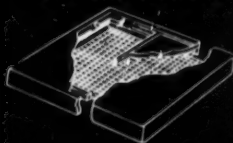
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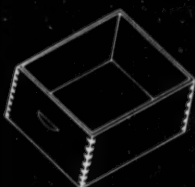
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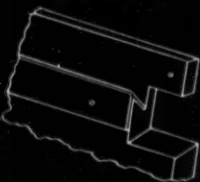
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We're looking forward to 1954 with optimism and anticipation, and we hope our goods and service have pleased you, and that we will be hearing from you soon.



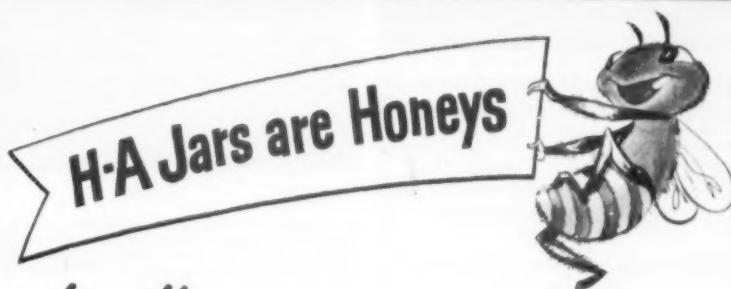
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American Bee Journal
Hamilton, Illinois

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Is like buying livestock, if you need any at all you need the best you can get. We have been breeding and shipping bees and queens over 25 years and know how to rear the best. So we can guarantee safe arrival and satisfaction.

Queens balance of season.
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Notables - - -

Dr. C. L. Farrar emphasizes a point in the breeding panel at Tri-State meeting in Hamilton. He faces the genetic tribunal—(right to left) Walter C. Rothenbuhler, Iowa State; Dr. O. W. Mackensen, Louisiana State; G. H. Cale, Jr., Dadant & Sons; Dr. Harry M. Laidlaw, Cal. U., and Dr. William Roberts, Wisconsin. (Center and back to reader, Dr. Eva Crane, England.)

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Vol. 93, No. 11

November, 1953

THE AMERICAN BEE JOURNAL

HAMILTON, ILLINOIS

Editor—G. H. Cale

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And More Notables - - -

(Also at Fri-State meeting, Hamilton) Left to right, Dr. C. A. Jamieson, Apiculture Division, Central Experimental Farms Service, Ottawa, Canada; M. G. Dadant, Associate Editor, *ARJ.*; vivacious Dr. Eva Crane (England); grandmother Morgenthaler (grandson in New Jersey), and Dr. Otto Morgenthaler, Research Institute, Liebenfeld, Switzerland.

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OUR COVER PICTURE

Ben M. Knutson, Alamosa, Colorado, again. It's hard to beat Ben's shots of bees on flowers; bees on the wing. Remember the picture of the bee in flight with wings in forward position which was used for the cover on the January issue, 1950? The pollen basket was loaded with a beautiful, symmetrical load of pollen. The bee on the blossom of columbine, in the present cover, may be a distant cousin of the first one, collecting the pollen for return to the hive.

November, 1953

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Three-banded Italians Only

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Explains the growing meat rabbit industry. Non-fancy. Est. 1931. 3 years \$2.00; 1 year \$1.00; Sample dime.

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Dept. S. Warrenton, Missouri

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Telephone 2415, Moreauville

ALL AROUND THE BEE YARD

by G. H. Cale

We had a meeting August 1-2. Yes, indeed! About a year ago Henry Hansen, Iowa Association president, asked for a meeting at Hamilton for Iowa, Missouri, and Illinois and this was it. Beekeepers came from twenty states, from Canada, Switzerland, Germany, and England. Why these days were selected for some of the hottest weather of the summer no one can unravel. The crowd had to sweat it out. But, at that everyone was happy. Beekeepers are always happy when they bunch up. Usually they get more out of impromptu talk with a group that magically assembles, here and there, than they do listening to the programs.

From most of the country the reports about honey crops are disappointing. A few beekeepers say they have a good crop but most of them considerably less than last year. For some, 1953 has been a near failure. Yards short distances apart vary considerably. In my own case two yards about five miles apart illustrate this: one has a fair crop; the other only a little honey. In fact, I'm afraid to look for there may be only winter stores in the poor yard. Yet the colonies in both yards seemed equally good and there seemed to be about as much clover around one as there was around the other. Beekeeping is seldom a way to riches. More often it's a way of life. Anyway, it's interesting.

Perhaps beekeeping in this country is too specifically commercial. To my mind anyone who sells his products for a profit is commercial. In beekeeping that includes many with a few colonies; and a few with many. When they get together the talk is about markets. Dr. Eva Crane, in her visiting and in her talks clearly shows that, in England, beekeeping is more of a cultural pursuit, even if the beekeeper does sell his products. To most of the beekeepers there the honey bee is a worshipful companion and offers compensations greater than shillings

or pounds. We have to find something above the humdrum and the press of necessity to cling to. Perhaps it is the club meeting, the golf course, the poultry show, the flower garden, or maybe the bee yard. Don't let the money end of beekeeping get you down. Get your head in the air and enjoy living just through your bees. Nice thought, isn't it?

The Tri-State meeting here brought together most of the men who are engaged in bee breeding: Dr. Mackensen, from the University of Louisiana; Dr. Laidlaw, from the University of California; Dr. Roberts, from the University of Wisconsin; Walter Rothenbuhler, from Ames; GH Jr., of Dadants, and Dr. Farrar, from Madison, as sitters in. Now what does that portend? In a panel discussion, the objectives of breeding seem to be to produce a bee, by controlled mating and genetical selection, that will be adapted for specific jobs and suitable for definite areas; one that has what we think we want—high production, gentleness, disease resistance, good color, nonswarming, delayed supersedure. As to color, one remark was that if the bees are pink, with polka dots, and still excel in production that is the kind to have.

As for disease, we seem now to be hoping that antibiotics will so control the problems that disease resistance may not be so immediately important. Eventually, however, resistance may be the most desirable barrier against disease. For the geneticist to weave all the desirable qualities into one strain and hold them all together without the rise of unforeseen and undesirable combinations, is a job, which once accomplished, will be one of the wonders of the bee world.

Let us remember the promotion for honey that filled the entire month of October last year and this year. It made a big difference in the demand for honey that continued

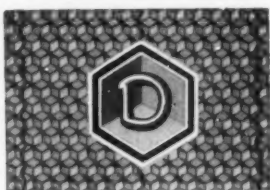
long after the effort ended. The efforts were wonderful but many groups and most individuals failed to understand what the objectives were. Few really participated. At the producer level, there has been considerable indifference, much of it due likely to not knowing just how to get into the program. The industry must eventually do its own advertising and October of each year is a well-selected month for everyone to get in on it.

What difference does it make how the bee dances; or how bees communicate? Whether some oddities have green eyes, or red eyes, or black and yellow eyes? It may mean considerable. From communication we may learn enough to understand what to do to improve location in relation to nectar sources and how to improve pollination management. From physical peculiarities we may learn just what the pattern of inheritance is, so breeding bees for practical purposes will become more efficient. So the scientist foreruns practice. The theories of electronics, little understood at the start, have evolved into a new world that has changed our lives—radio, television, radar, electronic controls—few of us realize the many applications that now affect us every day.

Robbing Control . . .

During a recent visit, Paul Holcombe, New Jersey State Inspector of apiaries, gave us a very useful thought which sometimes works quite well in the control of robbing, particularly when working in a backyard. We found it useful here almost the next day after he left us.

When robbers get bad, use a box or empty hive body with a comb of honey inside until the robbers have found it and are concentrating on it, then put on a cover with an entrance for the robbers to continue their work and drop cyanide inside. The robbers will come in but they die. After a while, little robbing. A good device. Also works well on loads when loading honey.



Beeswax . . .

Save your wax, combs, and cappings. Clean, rendered wax may be shipped to us in any quantity, large or small. Combs, cappings and slumgum should be accumulated and shipped by freight in lots of 100 pounds or more. Write for rendering prices and shipping tags.

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REQUEEN NOW

To insure strong productive colonies next spring, be sure all colonies are headed by vigorous young queens capable of producing full combs of brood.

Such queens are to be had in Island Hybrids (Kelleys Island Hybrid). We have the equipment and stock developed on the Lake Erie Islands and can supply your needs from our Georgia queen yards. We have had many good reports about these queens and feel you can get the same results.

Queen prices balance of season are:

	Island Hybrids	Reg. Rossman Stock
1 to 25	\$1.25 ea.	.80 ea.
26 or more	1.15 ea.	.65 ea.

"They Produce"

Place your order early to insure queens when you want them.

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Buy your supplies direct from the

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Whether you are a jobber, dealer, or bee-keeper, consult us regarding your supplies for the coming season.

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Our Modernistic Jars really display your honey in a way to catch the customer's eye. A full line of Modernistic Jars is given in our FALL PRICE LIST. Also round jars; chunk honey jars; honey servers; tin cans; cartons; comb honey wrappers; honey handling equipment - - - extractors, tanks, melters, uncapping knives, steam generators, acid boards, fumigator. QUANTITY DISCOUNTS ON ALL CONTAINERS. Send for your copy of FALL PRICE LIST.

Dadant & Sons, Inc.

Hamilton, Ill. Paris, Texas

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The Eugene E. Killions, of Paris, Illinois, accept silver trophies at National Honey Show, at St. Paul, Minnesota. Mrs. Killion holds the G. B. Lewis trophy for tops in chunk honey and the A. I. Root trophy for comb honey. Master Killion is proud

of the exhibit judged the most outstanding sample of honey at the National Honey Show. It was chunk honey. Eugene has a firm grip on the beautiful silver American Beekeeping Federation tray his chunk honey exhibit won.

The National Honey Show

by C. D. Floyd, Secretary

THE first National Honey Show is now history, the kind of history one likes to reflect on. Housed in a beautiful modern concrete building devoted to horticulture, apiculture and agriculture, the National Honey Show, held at St. Paul, Minnesota, August 29 through September 7, drew thousands of visitors daily.

Seventy-two exhibitors displayed several hundred entries representing many of the principal honey-producing states. Distance seemed of little importance as several fine exhibits came from as far west as California. The East was also represented—one excellent sample of comb originating from North Carolina. Texas and Florida also sought prizes in the show. The Midwest provided numerous entries from Iowa, Wisconsin, Michigan, Illinois, and of course, Minnesota. An entry from Montana constituted the sole representation from the upper Northwest.

It is felt at least part of the success of this first show was due to the efforts of state leaders who helped promote the show in their own states.

In the light-colored honey class, which included all white honeys grading 0 to 17 MM on the Pfund grader, thirty-six exhibitors entered the competition.

In the amber and dark classes, competition was also very keen with a number of entries of honey more or less exotic to this area. These classes proved to be of intense interest to the fair visitors who gazed in wonderment at labels reading Palmetto, Star Thistle, Sage, Orange, and Tupelo.

The comb honey class, with a dozen entries, seemed to be small compared to the other classes. However, this may have been due to the difficulty of shipping the somewhat perishable exhibits.

The chunk honey class, the most

spectacular of all the classes, provided not only competition from a quality standpoint, but also brought out many precious showmanship characteristics. Tops in this class swept the show for the coveted American Beekeeping Federation Trophy for the most outstanding sample of honey in the show. This exhibit proved to be really perfect, scoring 100 points out of a possible 100.

The granulated class suffered a little because of the intense heat of the opening days of the fair. These conditions did however, accentuate some of the important characteristics for this class since the better samples stood up well under the heat.

The beeswax class proved rather difficult to place as some exhibitors chose to enter fancy moulded wax rather than the conventional blocks. The moulded entries did attract a lot of attention, however. The quality of the wax was very good.

Class H, sponsored by the American Honey Institute, proved to be extremely interesting. Honey use exhibits have always been very well entered at our State Fair, so when this competition was set up, much interest developed.

Each exhibitor competing for the beautiful Honey Institute silver bowl had to show a honey cake, honey cookies, and candy made with honey. The trophy winner baked Mrs. Grace's all honey fudge cake, and all honey date bar, and honey taffy. This was a real win for honey. These prize winners needed no help from other sweetening agents.

Thirty-five entries were shown in this class, most of them being by Minnesota exhibitors because of the difficulty of shipping these perishable items from a distance.

The judging of the show was placed in the capable hands of a trio of judges who really did an excellent job. Professor E. C. Martin, Extension Apiarist from East Lansing, Michigan, acted as chairman, Dr. M. H. Haydak, of the University of Minnesota, and Mr. Don Robertson, of Canada, made up the panel. These men worked hard to complete the work in two days. At a later date it is planned to publish the work sheets of the panel and in that way one can learn where valuable points are often gained or lost in competition.

One important observation when the show is over is the fact that many of our better exhibitors over the country apparently felt they might be outclassed and did not take part. The first few years in competition of this nature are the years one should be entered in the show, because each time, experience and "know how" are gained by exhibitors, and as competition builds up, the experience is of real value. Since honey promotion is the ultimate object of this exhibition, you will be interested to know that during the ten days of the show, four separate T. V. shows headlined the subject of bees and honey using forty valuable minutes to promote our product. During the same period, six radio shows devoted valuable time to tell the story of honey and its value to man. One evening show devoted an entire hour to talking about bees and honey.

Many news releases, both national and local, carried results and news stories on the show.

Trophy Winners

Trophy, purpose awarded, type of trophy and the winner are listed in

the order named:

American Beekeeping Federation, for the most outstanding sample of honey, engraved silver tray—Eugene Killion, Paris, Ill.

A. C. Woodman Co., Grand Rapids, Mich., for light colored honey, engraved silver aspic tray—Carl Soder, Stratford, Iowa.

R. B. Willson, Inc., 250 Park Ave., New York, New York, for amber colored honey, engraved silver punch bowl—W. C. Miles, San Bernardino, Calif.

The Diamond Match Co., Los Angeles, Calif., for dark colored honey, engraved silver water pitcher—Honey Acres, Menomonee Falls, Wis.

A. I. Root Co., Medina, Ohio, for comb honey, engraved silver covered serving dish—Eugene Killion, Paris, Ill.

G. B. Lewis Co., Watertown, Wis., for chunk honey, engraved silver cake plate—Eugene Killion, Paris, Ill.

Sioux Honey Ass'n., Sioux City, Iowa, for granulated honey, engraved silver relish tray—Honey Acres, Menomonee Falls, Wis.

Dadant and Sons, Inc., Hamilton, Ill., for beeswax, engraved silver covered vegetable dish—Frank Finn, North Mankato, Minn.

The American Honey Institute, for the best combination entry of cake, cookies and candy, engraved silver fruit bowl—Mrs. Virginia Beard, 5516 France Avenue, Minneapolis, Minn.

Placings at the National Honey Show

Class A, light colored honey, 6 1-lb. jars, Pfund Color Range 0-17 MM—Carl Soder, Stratford, Iowa, 1st; Clarence Pfluger, DePere, Wis., 2nd; Mrs. Geo. Luthe, Lansing, Minn., 3rd; Ray Reed, Los Angeles, Calif., 4th; Sunny South Apiaries, Del Ray Beach, Florida, 5th; Frank Finn, Mankato, Minn., 6th.

Class B, amber colored honey, 6 1-lb. jars, Pfund Color Range 17-85 MM—Wm. C. Miles, San Bernardino, Calif., 1st; Eugene E. Killion, Paris, Ill., 2nd; Siedelman Apiaries, Ionia, Mich., 3rd; Kurt Ciper, Mt. Clemens, Mich., 4th; Frank Finn, North Mankato, Minn., 5th; Sunny South Apiaries, Del Ray Beach, Florida, 6th.

Class C, dark colored honey, 6 1-lb. jars, 85 MM and up—Honey Acres, Menomonee Falls, Wis., 1st; Siedelman Apiaries, Ionia, Mich., 2nd; Frank Finn, North Mankato, Minn., 3rd; Kurt Ciper, Mt. Clemens, Mich., 4th; Wm. C. Miles, San Bernardino,

Calif., 5th; Louis J. Couture, 8551 Cedar Ave., Minneapolis, Minn., 6th.

Class D, comb honey, 6 section, 4¼"x4¼" or 4"x5"—Eugene E. Killion, Paris, Ill., 1st; F. R. Killion, Ridgeway, North Carolina, 2nd; Honey Acres, Menomonee Falls, Wis., 3rd; Paul Daellenbach, Malta, Mont., 4th; Linford B. Bond, Port Huron, Mich., 5th; Frank Finn, North Mankato, Minn., 6th.

Class E, chunk honey, 6 2-lb.—Eugene Killion, Paris, Ill., 1st; Paul Daellenbach, Malta, Mont., 2nd; Frank Finn, North Mankato, Minn., 3rd; John A. Larson, Taylors Falls, Minn., 4th; Ed Englert, Rosemont, Minn., 5th; Sunny South Apiaries, Del Ray Beach, Fla., 6th.

Class F, granulated honey, 6 1-lb. jars—Honey Acres, Menomonee Falls, Wis., 1st; Paul Daellenbach, Malta, Mont., 2nd; Siedelman Apiaries, Ionia, Mich., 3rd; Louis J. Couture, Minneapolis, Minn., 4th; Wm. C. Miles, San Bernardino, Calif., 5th; Ray Reed, Los Angeles, Calif., 6th.

Class G, beeswax, 5 lbs.—Frank Finn, North Mankato, Minn., 1st; Eugene E. Killion, Paris, Ill., 2nd; Honey Acres, Menomonee Falls, Wis., 3rd; Kurt Ciper, Mt. Clemens, Mich., 4th; Louis J. Couture, Minneapolis, Minn., 5th; Paul Daellenbach, Malta, Mont., 6th.

Class H, honey use exhibit (25% to be used for sweetening), lot 1 cake, exhibitors' choice—Mrs. C. Arlt, St. Paul, Minn., 1st; Virginia M. Beard, 5516 France, Edina, Minn., 2nd; Mrs. M. W. Clark, 1270 E. Como, St. Paul, 3rd; Mrs. Frank Miller, 3110 Emerson S., Minneapolis, Minn., 4th; Phyllis Couture, 8554 Cedar Ave., Minneapolis, Minn., 5th; Mrs. Edwin Englert, Rosemont, Minn., 6th.

Lot 2 Cookies, 12 pieces, 1 or more kinds, exhibitor's choice—Virginia M. Beard, 5516 France S., Minneapolis, Minn., 1st; Mrs. Frank Miller, 3110 Emerson S., Minneapolis, Minn., 2nd; Mrs. Herman Frahnner, R. 1, Newport, Minn., 3rd; Mrs. Walter Olson, St. Paul, 2950 W. Owasso, 4th; Mrs. Myron W. Clark, 1270 E. Como, St. Paul, 5th; Mrs. Edwin Englert, Rosemont, Minn., 6th.

Lot 3 Candy and Confections, 12 pieces, 1 or more kinds, exhibitor's choice—Mrs. Herman Frahnner, R. 1, Newport, Minn., 1st; Mrs. M. W. Clark, 1270 E. Como, St. Paul, 2nd; Mrs. C. Arlt, 341 W. Wyoming, St. Paul, 3rd; Mrs. Frank Miller, 3110 Emerson Ave., S. Minneapolis, 4th; Mrs. Edwin Englert, Rosemont, Minn., 5th; Virginia M. Beard, 5516 France S., Minneapolis, 6th.



DR. ELMAR E. LEPPIK,
Professor of Biology,
Augustana College, Sioux Falls,
South Dakota.

The Language of Bees and Its Practical Application

by Dr. E. E. Leppik*

Formerly Estonian Professor, Dr. Leppik, is a student of ecology. His studies with nerve stimulation have opened new avenues of research, one of them a new phenomenon, "bees' struggle." In this presentation of the language of bees, he follows Dr. Karl von Frisch, to whom he gives great respect.



DR. KARL VON FRISCH,
The eminent dean of bee studies.

WITH the term *melittolexis*,¹ or the "sign language of bees," a student of biology means one of the most remarkable findings in the field of animal behavior. This is a well developed system of communication among bees, accurate and efficient as any dispatch of human messages. The disclosure of this system helped to unvell some of the most mysterious phenomena of the bee's life, formerly called "dances," "struggles," "wars" and so forth. For the beekeeper these new findings look promising, since they are revolutionary for the further study of animal behavior.

A German biologist and writer, Dr. Fritz Bolle, points out that the newest scientific findings about bees are just as surprising and fascinating as any fairy tale or children's story about "speaking," "struggling" or "dancing" animals. In fact, the communication of precise information to one another forms just as important a basis for the social life of insects as does language in a human society.

To be sure, the bee's "language" differs radically from our verbal

way of conversing. A great many body movements, performed at different speeds, and some signals with the antennae, are the constituent codes and indications in a bee's discourse. Furthermore, a bee is able to exchange with its fellow workers the smallest scent particles and communicate the delicate fragrances of flowers in a way that would be entirely impossible for man.

The common use of a perfect numerical system by bees was an additional surprise in a long series of findings about the "language" of insects and will be discussed in another paper.

Melittolexis contains no "empty phrases" or dialectics, which would be useless for a bee. But in its special limited area it works as perfectly as any language of the human race.

Historical Review

It was not at all an easy task for biologists to interpret the conversation of bees and describe it in scientific terms. Professor Karl von Frisch, an outstanding Austrian ecologist, spent 40 years in the study of the "bee's dances," which is the core of *melittolexis*. Being convinced of the existence of some system of communication among the bees, he believed that he had discovered the "language of bees" after 15 years of extensive experimental work. But he had to abandon this hope because it was not until 25 years later that he was able to interpret and explain the meaning of "bee's dances." The research work of Dr. von Frisch is now accepted as classic in the special field of animal behavior and is, at the same time, modernizing biological thinking.

The author of this article can confirm the findings of Dr. von Frisch and, while experimenting with newly discovered nerve poisons, succeeded in deciphering some further codes of *melittolexis* (see: "Am. Bee Journal" 1951, p. 462; "Scient. Am." 1951, p. 34; "Agric. Chemicals" 1951, p. 48). Further contributions to the problem of bee dances have been made by M. Lindauer in Germany, F. Schneider, P. Tschumi and F. Baltzer in Switzerland, M. H. Haydak and V. G. Milum in the states, Hein in the Netherlands, and several other workers in biology.

To perfect *melittolexis* for practical application in apiculture it is necessary to add some new words and concepts to the beekeeper's language. Dr. Helmer M. Blegen of Augustana College studied the "language" of bees from a linguistic approach. He introduced several new terms into our language to interpret *melittolexis*, the "language" of bees.

This strenuous work of many stu-

*The author is indebted to Dr. Karl von Frisch, Head of the Department of Zoology at the University of Munich, Bavaria, for his many comments and viewpoints about the problems, discussed in this paper.

1. The term "*melittolexis*" ("apilexis") is of Greek origin. *Melissa* means bee and *lexis* (from "lego") "mode of expression"; the compilation of signs and "language" as a general concept. *Dialect* (*dialektikos*) is a local variety of a general language.

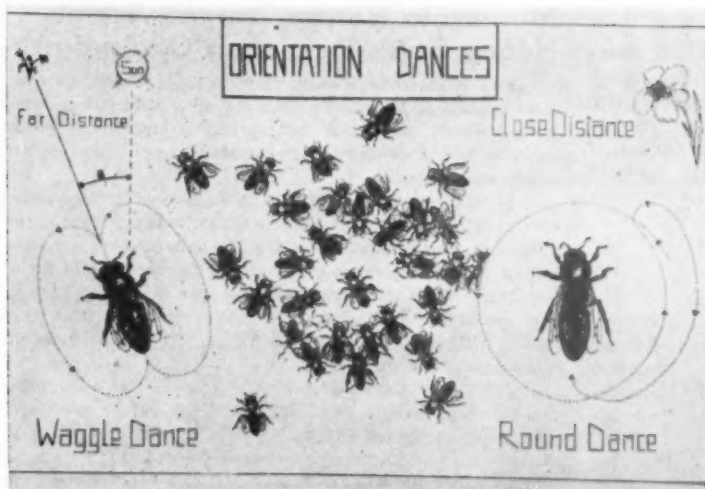


Fig. 1—"Orientation" dances, first described by von Frisch and later confirmed by many scientists and beekeepers. A "dancing" bee performs definite gyrations that indicate the distance and direction of the location of nectar plants. Copied from photograph by D. Homburg.

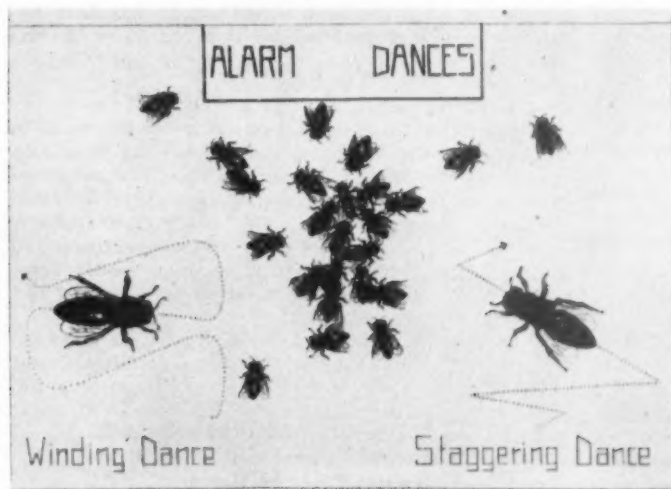


Fig. 2—"Alarm" dances, with winding and staggering gyrations. Copied from photographs by D. Homburg.

dents from different fields helps beekeepers to understand the delicate life and work of bees and to increase the production and income of apiculture.

Melittolexis

Melittolexis¹, or the "sign language of bees," is a compilation of definite signs, codes, indications, movements, and objects (for instance, scent particles) which have the same meaning for a large group of individuals and which these individuals can perceive and communicate to each other. Myrmecolexis is another term, which could be used to indicate the language of ants,

entomolexis the language of insects, and so forth.

The main part of the bee's "language" consists of various kinds of theatrical performances called "dances." Round dance, waggle dance, figure eight, spiral, zigzag, and apian cancan (fig. 1-4) are terms quite often used for these performances. These varied dances of the bees may be observed in any beehive which is provided with a glass window. The dancer, commonly a scout bee, returns from its reconnaissance trip and points by means of a definite axis in its dance gyrations in the direction of a flower plant it has found that is rich in

nectar or pollen (fig. 1, left). Where the "dances" are performed in a dark hive, the "dancing" bee uses the gravity variations as symbols of the direction. Dr. K. von Frisch, interpreting the waggle dance of bees, formulated the following rules. If a dancer heads directly upward during the straight part of her dance gyration, this apparently means: "The nectar plant is in the same direction as the sun." If the straight run points down, it means: "Fly away from the sun to reach the food." So many degrees to the left of the vertical line in a hive means the same angle to the left of the sun. The distance is indicated by the number of turns the dancing bee makes within a given time. Dr. K. von Frisch, with a stop watch in his hand, could tell how far a dancing bee had flown in a certain length of time. For short distances, bees perform round and sickle "dances."

Whether or not bees can receive and react to sound signals has not yet been established. Although they produce different kinds of sounds with their wings, which are clearly distinctive to the human ear, no hearing organs have yet been discovered in bees.

Further Experiments and Observations

Sunshine and favorable temperature are the most important prerequisites for worker bees to venture out from their hive. If the heat of the sun is great enough to dry out the nectar in the flowers, the workers stay at home. The same is true when a heavy rain is expected. The worker bees seem to have too little initiative to find out nectar gathering conditions themselves; they wait until the bee scouts bring them the accurate information from the outside and give them exact instructions where to go and what to do.

Marked worker bees, taken from a hive to a place a considerable distance away and put on flowers rich in nectar and scents, did not touch the flowers even though they had been kept hungry for some time before. After some few minutes they were back at their own hive and could be seen watching the dances of scout bees.

Melittolexis enables bees to coordinate the entire work and community life in a bee colony and besides this to harmonize the achievements of myriads of individuals of the same species to the same goal.

(To be concluded in December)

Texas Beekeeper Dies . . .

We regret to announce the death of A. W. Bulay of Dayton, Texas which occurred during September. Mr. Bulay was one of Texas' pioneer beekeepers with an abiding faith in the future of beekeeping. He not only was a thousand colony operator but a packer of jar honey as well. Well do we recall a trip he made to Hamilton and his high praise of rattan honey from his section.

Emil Gutekunst . . .

Seventy year old Emil Gutekunst passed away recently at his home in Colden, N. Y. Mr. Gutekunst was not only known as a sterling beekeeper but for years was a breeder of fine queens also. The family will carry on the bee business.

Florida Inspector Reports . . .

Chief Inspector of Bees for Florida, Hardin S. Foster sends us a copy of his report for 1952-53 as tendered to the Governor of Florida. Despite a shortage of funds, some ninety two thousand colonies were inspected showing an infection ratio of American foulbrood of 1.49 percent. This is a slightly higher percentage than a year ago, laid, by Mr. Foster, to shortage of funds which made the work done, necessarily, emergency work. Heavy increase by commercial men and migratory influx also counted. The colonies were inspected at a cost of 34 cents per colony. The four assistant inspectors aside from the chief were G. E. Tanner at Bristol (West Florida), R. A. Martin at Orlando (East and Central Fla.), Charles Griffin of Bartow (West and Central Fla.) and T. R. Yeomans of LaBelle (South Florida). Mr. Foster operates from Gainesville.

Attention Virginia Beekeepers and All Beekeepers Under Similar Circumstances Anywhere . . .

George W. Vest, manager of the Lewis-Dadant Branch at Lynchburg, Virginia, sends in an item in a letter of October 5 in which he says: "In talking with the state inspector, Mr. H. W. Weatherford, and a number of commercial beekeepers, I have learned that bees are now lower in stores than they have been for a number of years. Would suggest you check your bees and feed them at once; if not, I fear there will be greater losses of bees from starvation this winter than we have ever had in Virginia."

This is just as pertinent to beekeepers in all the areas where the crop has been low due to drought or unfavorable circumstances.

Kentucky Beekeepers Register Your Bees for New Fiscal Year . . .

Register your bees now for the new fiscal year 1953-54. Applications can be obtained by writing the Commissioner of Agriculture at Frankfort, Kentucky. All fees go into a fund for bee inspection work in Kentucky. Blanks can be obtained by writing the association also.

Minnesota Honey Council Adopts Honey Sales Promotion Campaign

The Minnesota Honey Council, 2525 Park Avenue, Minneapolis 4, Minnesota, has set up a promotion committee which ran a test last spring to prove that point of sale honey promotion increases honey sales on an average of 87%.

A sales promotion plan was presented at the summer meeting at Detroit Lakes which was approved, resulting in the formation of the present council, consisting of 3 beekeepers and 3 packers to raise funds on a voluntary basis of 1/10 of a cent per pound of honey. The beekeeper authorizes the buyer to turn over the money which the packer will match in amount to send the Minnesota Honey Council.

The funds accumulated will be used for sales promotion work at the point-of-sale, a state-wide program benefiting everybody.

U.S.D.A. Makes Important Announcements . . .

The U. S. Department of Agriculture announced October 16, 1953 the termination of the 1953 Honey Export Program. This termination did not affect any honey for which an application had already been approved. Approved applications from April 1 to the termination of the program amounted to approximately twenty-five million pounds.

About the same time, USDA announced that 1,098,000 pounds of extracted honey had been purchased in California, Iowa, Nebraska, Texas, Utah and Wisconsin by the Commodity Credit Corporation. The purchases were made to fill a Foreign Operations Administration requisition for export. The honey was of U. S. Grade A quality and was acquired both from beekeepers and packers. The purchase was made in 60-pound cans, overpacked suitable for export, at prices averaging 15.4 cents per pound.

The Department also announced the sale of 98,185 pounds of honey acquired by the Commodity Credit Corporation under the 1952-1953 price support program. The entire quantity was sold to one exporter at prices ranging from 7.9 cents to 10.6 cents per pound.

To Sir Edmund P. Hillary, New Zealand Beekeeper . . .

What moveth man to do what's ne'er been done
Before, what naught but fools would think of doing?
Why, his crass, foolish boldness never ruing,
Seeks he the race that never has been won?
What giveth man the stamina and brawn
To outdo the goat in mounting fearful cliffs,
To match his wit 'gainst Nature since the dawn
Of time? Why laugh to scorn the yawning rifts?
Why doth the vain, proud pygmy—man, assail
The highest, Goddess Mother of the World,
Mount Everest? Why doth he never quail
When Nature's challenge in his face is hurled?
'Tis Honey, Love, and Pride that stirs mere man
To do far more than devils or angels can.
Then hail to Tenzing! Hail to Hillary,
New Zealand's doughty Keeper of the Bee!

Raymond Jenkins,
Catawba College,
Salisbury, N. C.

November

SPOTLIGHT



The honey house of Ira Bowers, Decatur, Illinois, will do, better than most honey houses, to illustrate excellency in sanitation.



Sanitation



Sanitation in Honey Production

by Clare D. Floyd

State Apiarist
Minnesota

THE apiary business today is faced with many important problems. For years, the subject of production has provided copy for beekeeping journals. Relatively recently, beekeepers have come to recognize the importance of sales and promotion.

With these problems still so important, others, such as sanitation, may seem of less importance. Some beekeepers seem to think even the consideration of the subject of sanitation is an infringement of their rights as beekeepers. Still others feel sanitation is too costly. Some assume, with present honey prices, it is impossible to recondition their honey houses.

Sanitation of honey houses in Minnesota has proved not only very valuable to production, but it has been accomplished relatively inexpensively.

The legal consideration in setting up a sanitation program may be of interest to our readers. This was accomplished in our state gradually. Nearly a score of years ago, our present Apiary Law was drafted and like most other state laws governing apiary operations in this country, it included a clause stating honey must be processed, stored, and graded in a sanitary building. Such a clause in our Apiary Law placed the duty of enforcement in our particular case, in the hands of the apiary inspectors who are directly responsible to the State Entomologist.

Conscientious inspectors endeavored for several seasons to recommend cleanup of honey houses to their satisfaction. Frequently, however, there were wide differences of opinion on what the word sanitary embraced. It seemed emphatic that

a clear definition should be established. About this time, (1949), a few samples of honey were condemned in local food factories using honey. These were condemned by the State Food Authorities on the basis of their general appearance, rusty cans (outside only), carrying no labels, sticky on the outside with a collection of dust or other debris. These seizures prompted visits to the honey houses from which the honey originated. Although these honey houses were not lined with white tile, our inspectors felt they had seen worse. In other words, the time was right to consider a proper definition of this word "sanitary," especially with regard to honey houses.

A committee of interested people including beekeepers, food inspectors, and representatives of the trade met to consider this problem.

From this meeting, a proposed regulation emerged. A regulation is not a law; it is an implement constructed within the framework of the law to aid in enforcement of the said law. This meeting merely provided a set of rules to be worked over, modified, and in some cases, strengthened by future hearings before beekeepers. Two preliminary hearings were held at which difficulties were ironed out. The final hearing approved the regulations on July 19, 1950, after which the regulations went into effect.

Three years have elapsed. What progress has been made? We admit immediately—not all places where honey is prepared for market today in this state are adhering to the letter of the regulation. This does not mean enforcement has been lax. Education is a major implement in enforcement. Beekeepers are

learning rapidly how to conform with the requirements. Some enforcement is necessary. In three years, three honey houses were closed until changes were made. Although no honey house plans were adopted, many suggestions were advanced, some of which now appear on page 255, American Bee Journal, June, 1953. Most renovating was voluntary. Several new honey houses were built, but many were merely fixed over. Fluorescent lights have been accepted as a must. They have proved more economical as well.

Smooth surface cement floors are very popular. Running water has been accepted as necessary. The expense involved in rebuilding to meet requirements, of course, presents a major consideration. This was very skillfully handled in many of our commercial operations by partitioning off the extracting and packing room from the rest of a large warehouse, the corner of which formerly may have been used for extracting. Such an extracting room was easily kept clean with walls and floors of washable material. Heating was less of a problem in these smaller rooms. Working efficiency largely outweighed the cost of the change.

What about novice beekeepers? These men presented no particular problem providing they extract their honey under conditions as clean or a little cleaner than an ordinary kitchen.

To sum up, in three years, no makeshift honey houses have come into operation. A number of new cement block and hollow tile extracting plants have been built. Good lighting, running water, and proper toilet facilities have been added to most other plants. The

beekeepers are not only sanitation conscious, but are now proud of their plants, inviting customers to stop in. Proper bee escapes and screening have practically eliminated the possibility of those visitors being stung during the visit.

You may ask—Is it necessary?

It is felt, if we are to have efficient handling of honey, we do need clean, sound equipment. Then, if honey is to be sold to the best advantage, whether it be to the consumer, the grocer, or the bottler, clean honey will draw a premium. We realize now, had we not acted to clean up

our problem, certain authorities, foreign to the bee business, no doubt, would have caused us considerable distress. Above all, we as beekeepers must realize honey is a finished food, not a raw product. Our primary interest is to keep our product in that category.

The Small Beekeeper and His Honey House

by Carl M. Teasley

Deputy Apiary Inspector
Tennessee

IF THE time ever comes when the small beekeeper becomes a large one, then I think that time is when he passes 200 pounds in weight. The time when he becomes a commercial producer of honey may be quite different.

The packing and selling of his crop is where the overhead may get over his head. Therefore he or his help must cut some corners to wind up in the black column year after year.

Just now he is faced abruptly with a great problem of a costly honey house—if the recommendations put forth by extremists are carried through. So he must seek a way out of this problem or out of business. I have been thinking on this quite deeply, and have the following suggestions to offer:

1. Main equipment for processing the crop be limited to an uncapping knife, capping basket, small radial, honey storage tank or tanks, strain-

er cloths and strainer cloth holders, honey gates, and a 2-wheel hand truck. The overall cost of this equipment should not be over \$225.00.

2. Walls and floor which can be cleaned daily by mop and water or heavy rag. Linoleum covering for floor preferred.

3. Tubs, buckets or 60-pound cans optional for carrying honey from extractor to settling tank.

4. Extracting room large enough for some comb storage.

5. Comb packing optional in either kitchen or extracting room.

6. Health card required for all workers.

7. Running water not required in extracting room.

8. Clean clothes and hands required naturally (but most beekeepers I know stay clean by habit, not by requirement).

9. Clean, new containers used for packing No. 1 grade table honey.



Packing of other grades optional as to containers.

10. Single screens only on all openings in honey house.

11. Disposal of all refuse into covered bee-proof pit.

12. Canvas or oilcloth cover for extractor and storage tanks when not in use or overnight.

That covers it. The cost for such will not be too great and the small beekeeper will remain in business. He cannot face a cost of several thousand dollars and the resulting mortgage, and hope to keep his face above water.

I have a few "Teasley Thoughts" to throw in here that might bring a chuckle or the opposite. I hope for



Is this the way to do it? Stack of filled supers; uncapping can; drainage tub; extractor. The uncapping can is a new, sterilized, garbage can, with slate on top to hold the tub. Uncapping tub has half open bottom covered with crimped hardware cloth.



The small beekeeper must plan well. Here is comb storage at the yard before the honeyflow.

the former and hope also that I am not misunderstood.

Where does the small beekeeper go? I know where the large commercial producer would say, but the small beekeeper could say the same place, too.

If the small beekeeper is represented by 85% of the beekeeping fraternity then he is a most important person. The wagging of a 15% tail should not shake the whole beekeeping dog (to alter Roosevelt's remark ever so slightly).

Down here in Tennessee the small beekeeper is always with us. I am one, and know of no banker willing to loan me money to build a honey house such as some proposed. I expect to remain a beekeeper, too.

Take away the individual initiative of the small beekeeper and he finds other sources of income or other hobbies. Once a beekeeper, always a beekeeper, I think, so if he cannot sell from his honey house then he might skip the source of controversy

and sell from the hive. That is a clean honey house, isn't it?

Take the small beekeeper's honey off the market and you take away a boost to honey sales as a whole. The more honey sold—and liked!—boosts the overall sales regardless of the producer. I think the small producer a better salesman than his commercial brother, anyway.

I wish George Bohne were still alive. I sure would like to read or hear his remarks on this subject.



An Inspector Looks at Sanitation in Honey Production

by Frank X. Novak*

DURING the past twenty years it has been my privilege to witness great improvement in the production, manufacture, and marketing of food products. However, though a great deal has been accomplished, there still remains much to be done if we are to achieve the goals to which we, as food regulatory officials, have set our sights.

How does an inspector look at an industry with which he must work and which he knows requires improvement? Since our primary duty is the protection of public health, then we must require that food be produced and processed under the best possible sanitary conditions. Modern sanitation efforts must continue in the beekeeping and honey industry, and although progress is lagging, nevertheless, a start has been made and progress will continue to be made until modern sanitation is an established part of honey production.

It is encouraging to note that the American Beekeeping Federation at its annual meeting in January, 1953,

at San Jose, California, recognized the need of improvement and had presented to its membership a resolution setting certain standards of sanitation for the industry to be recommended to the U.S.D.A. as a guide to formulating future regulations governing Honey House sanitation. In general, these standards are similar to those adopted by all food producers as minimum standards. They provide for the proper construction of honey houses specifying the type of construction for walls, ceilings, floors, windows, doors, and other openings, lighting, and ventilation; and provide for proper equipment and its care, toilet facilities, and clothing for workers. The resolution further specifies requirements for storage facilities and, of course, for the maintenance of an adequate and safe water supply.

No doubt there are many in the honey industry who feel that too much is being demanded of them, that the cost of proper buildings and equipment will be so great as to be prohibitive. However, we must remember that as each industry has been required to meet modern sani-

tary requirements, there, too, has been a loud protest at first, but as the goal has been achieved, the affected industry has looked into the past and wondered how they got along so many years with the poor facilities and makeshift sanitation practiced before the modernization program.

What are the bare requirements that a regulatory official would like to see in a honey house? The buildings used should be in good repair, have smooth walls and ceilings, well painted, preferably white or other light color washable paint. A cement floor is preferred, but other smooth surfaced material is acceptable providing that it can be readily cleaned. Buildings must be rodent proof, properly screened and provided with adequate lighting. Good utensils, implements, and equipment are also a necessity. All containers and honey processing equipment should be made of material that can be readily cleaned. Whenever possible, stainless steel equipment is to be preferred. Although the initial investment for stainless steel may be the greatest, I do not think in the long run it is more costly, as stainless steel is strong, long lasting, and easily cleanable. Both hot and

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cold running water are a must, and adequate sinks and toilet facilities are essential. Soap and sanitary towels must constantly be on hand ready for use. Finally, all workers are to be provided with clean, washable outer garments.

The importance of an attractive package for the retail trade is always stressed at the time of inspection. This is one phase of the honey industry that has kept abreast of the times, for it is my belief that honey packaged in glass as we are familiar with it, is a very attractive package to the consumer. The one container that I find objectionable is the five-gallon can customarily used to deliver honey to bakeries, candy manufacturers and other large users. Since these containers are fairly expensive, they are re-used by some and are almost never properly cleaned. The pouring lip of these containers is totally inadequate, and it is often true that these containers have sticky exteriors that contaminate honey when poured. This can should be redesigned so as to make it readily cleanable

if there is to be any improvement in the handling of bulk honey.

In an industry such as beekeeping, where there are many small operators who cannot afford large expenditures, the inspector must, of necessity, use good judgment. Every food producer, be he big or small, can exercise good sanitation habits. One can compare the food-processing rooms to a kitchen and require every operator to adhere to good house-keeping habits. It is not too much to require a honey producer or processor to keep utensils and equipment clean and premises in good repair, well painted, and clean. If funds are available so that buildings can be constructed of concrete or other smooth hard surfaces, then these should be built. If this cannot be done because of inadequate funds, then the available premises shall be clean and well painted. Refuse, flies, rodents and other contaminating elements should not be permitted, as such conditions serve to produce contaminated merchandise.

The honey industry, like other

food industries, must strive to improve the quality of its product. Competition in the food industry is keen and the consumer, who, in the final analysis, writes the ticket, is quality conscious. Quality improvement is closely associated with improvement in sanitary conditions. Realization of this fact caused Myron W. Clark, Commissioner of Agriculture, Dairy and Food in Minnesota, to adopt regulations governing the sanitation of honey houses. I have no doubt that insanitary condition contributing to lower quality could prevail in areas where no sanitary regulations are in force. I am proud that our state is one of the first to adopt such regulations and thus become one of the pioneers in the creation of modern sanitary conditions in the honey industry.

It is to the credit of the American Beekeeping Federation that they have realized that modern sanitation methods must be practiced in honey houses and that they have taken the initial steps to focus attention on this important problem.



Let's Establish a Difference between Extracting and Packing Honey

by Baxter Woodman

THE sanitation ideas so far proposed do not make a difference between an extracting plant and a honey packing plant. There should be some difference between the two just as there is a difference between a dairy barn and a creamery. There is certainly a need for sanitary regulations and I believe these regulations should be up to the individual states. The proposals with which I am familiar seem mostly suitable for honey packing

plants. I would not like the job of administering them as they are. Also, in good sized operations, most proposals would add several hundred dollars each year to operating costs. Can these costs be passed on in the price of honey?

Extreme regulations might well cause many small operators to leave the industry and certainly it would be more difficult for interested people to get started. It might finally mean that the beekeeper would have to take his honey to a central extracting plant set up on a service basis where the equipment and conditions demanded could be financed.

I have seen honey houses that were messed and unclean and I am highly in favor of any measure that will clean up such places. I have been in honey houses that are entirely satisfactory as extracting plants but not suitable for bottling plants. Some (and they are in the minority) are really polished up, nice to see, and indicate pride of ownership. But they go beyond the actual basic needs of most beekeepers who may be mainly interested in crop handling and not in packing. Packing is a different matter.

Michigan



Sanitation in Honey Production

by Tom L. Ball

Superior Honey Co.

IF WE were asked to define "Sanitation" we would say in general terms it refers to cleanliness and it is with that interpretation that we are primarily concerned in this article. If we were to use a technical and stricter interpretation we would then approach it from the angle of its relationship to the protection of our health. At least that would be the point of view which would be taken by doctors, nurses, sanitary engineers, and others who are directly connected with the protection of the health of the nation.

It is quite generally accepted that disease germs common to humans cannot live in honey, and therefore cannot be transmitted by honey. This is a fine tribute to the product which we are handling but there are some individuals who choose to carry that compliment too far.

All of us know of the strict regulations which are provided throughout the nation for the handling of milk and dairy products in general. There was a time when milk was handled very carelessly but today the dairy industry as a whole stands out as a very fine example of sanitation. Efforts have been made in some states to set up a sanitary code for the handling of honey based on the measures which have been taken in the dairy industry. Were our industry set up on that same code, I doubt that there would be a honey extracting plant in the whole country that would qualify. The dairy industry for the most part, and particularly that segment which has to do with the handling of liquid milk, is pretty well converted to the use of stainless steel equipment and the use of "sanitary" fittings for pipe lines, tanks, pumps, etc.

If a beekeeper or a honey packer is able to do so, there certainly would be no objection to the use of stainless steel equipment in the handling of honey. Such equipment is very expensive and is beyond the reach of most operators in the honey business. Honey storage tanks made from galvanized steel and pipe lines which are also galvanized are generally accepted as being sufficient. However, we should point out here that in many instances these pipe lines are not large enough in diameter to accommodate the flow of heavy honey and by the same token they are not so easily cleaned. A common mistake is to buy a pump which is too small and to install piping to fit the pump. Not only does a larger pump make for a cleaner operation but also a more efficient one.

It is my opinion that the most neglected item around honey extracting plants which I have seen is water and particularly hot water. Water is an absolute necessity around any operation where food is being handled and if the food is sticky like honey then there should be either hot water or steam. A steam boiler is a very desirable part of any extracting plant and if you have steam available it is a simple matter to get hot water. Steam and cold water may be mixed through a mixing faucet or cold water may be heated in a tub or pail by a steam jet. The boiler need not be large and the pressure at the boiler need not be high. We would say that a boiler for use in the average honey extracting plant with a capacity of one to three horsepower would be ample. We have visited some plants where larger boilers are in use but it is by no means necessary to have a large boiler.

Considerable thought should be given to the construction of the building used as an extracting house. The floor should be of concrete or other substance which is readily washable and it is quite desirable

that a floor drain should be provided. Such a drain should be connected with either a sewer or a cess pool to carry away the waste water and to remove germs common to bees and in that way prevent needless spreading of disease. The walls of the building should be so constructed that they may be painted and at the same time made perfectly tight to exclude bees, flies and other insects. This of course means that screens should be provided at the windows and at the doors. It has been recommended, and with good judgment we believe, that the room where honey is extracted should be separate and apart from other rooms where supers and equipment are stored. It is well to provide a sink or basin connected with the water system where workers may wash their hands and that clean towels be provided.

We have found considerable carelessness in the cleaning of extractors, tanks, and the various tools and appliances used in the course of extracting honey. Not only is this a very undesirable situation from a sanitary angle but it is also undesirable from the point of damage to equipment. It seems unthinkable that any individual would permit his extractor, for instance, to stand from the end of one season to the beginning of the next season without giving that extractor a thorough cleaning. The same holds true for uncapping knives, pumps, storage tanks, cappings melters, etc. However, we have seen equipment neglected just because the owner had not taken the time to give such equipment a thorough cleaning. To do this it is first necessary to have steam or hot water and along with it the inclination on the part of the owner to protect the equipment against deterioration by means of cleanliness.

There has been considerable discussion as to methods which should be used for straining or settling of honey and the degree to which that

straining or settling should be carried. I feel that I can get a majority of opinion with me in that respect by saying that honey should be settled or strained to the degree that it is clean and reasonably free of particles of beeswax, foam and other foreign material. This means of course that all of the coarse particles should be removed and that, by the way, includes bees and other insects. This refers of course to the condition in which honey should be packed into 60 lb. cans for delivery to the honey packer.

The packer does not expect the beekeeper to use a commercial type filter to obtain a product which is sparklingly clear, although I do not know of any packer who would object to honey of such clarity. Foam is objectionable to all packers just as coarse particles are objectionable and the same holds true for honey which is cloudy, caused by minute air bubbles.

The usual method of removing objectionable foreign matter from honey is by straining, but proper settling is also important and desirable. In addition to proper straining and settling we can heartily recommend the use of a "baffle" tank. A baffle tank properly constructed will remove most of the objectionable foreign matter and if the baffle tank is placed ahead of the strainer the need of changing strainers will be much less frequent. When honey is drawn from storage tanks into five gallon cans, care should be exercised to see that the operation is stopped before the honey level in the tank becomes so low that foam begins to emerge. Proper settling will cause much of the smaller foreign particles to collect with the foam.

The time required for proper settling of honey depends to a considerable extent upon the temperature of the honey as well as the body. After honey has been settled for the proper length of time, all foam and other foreign matter should be skimmed from the top of the tank before any

honey is drawn from it. Strainers should be made of suitable cloth or screen to remove the foreign matter but in no case would we suggest metal strainers which are coarser than 16 mesh. If a baffle tank is not provided ahead of the strainers it is well that not less than two strainers be provided for each storage tank. The reason for this is that when a strainer becomes clogged it can be immediately replaced by a clean strainer rather than to attempt to clean the strainer already in use by scraping. The use of a scraper only forces some of the foreign matter through the strainer.

In the course of filling 60 lb. cans of honey it is very desirable that each and every can be thoroughly inspected before filling. This is particularly true where second-hand cans are being used. We heartily recommend that hot water be available for a rinse for second-hand cans. In fact, it is a good idea to let the hot water remain in the can for a few minutes before the can is filled. By doing so you may discover a very small leak in the seam of the can or even a nail hole which had become plugged by cold honey. It is also desirable that the neck of the can be washed and that the same attention be given to the cap. If the liner in the cap is in poor condition it should either be replaced or covered by a clean wax paper before being applied.

It is desirable that all filled cans be washed on the outside, particularly if honey has been permitted to overflow the capacity of the can. Among the first things that a sanitary inspector notices at a honey packing plant is the presence of honey on the tops of cans and especially if dirt and insects have also collected.

Attention should also be given to one's personal cleanliness and particularly the condition of the clothing being worn. White of course is an ideal color for outer clothing around an extracting plant but we

see no particular objection to other colors being worn if the clothing is clean. It is common to see white uniforms in various food packing plants and it seems that white is generally accepted as a "sanitary" color.

It seems to me that the thing for all of us to do is to take steps to place our individual plants and the industry as a whole, on a sanitary basis. If we can show officials from the federal food and drug division or inspectors from various city and state agencies that we are at least trying to be clean, there is not the danger of force being applied to attain a sanitary standard. In other words, it is up to all of us to take care of our own house cleaning and make a conscientious effort to keep it that way.

It would not be fair to close this article without giving due credit to beekeepers who already have clean and sanitary extracting plants by unofficial standards that we might set up. It has been my pleasure to visit many plants in this Rocky Mountain area which are above criticism from a standpoint of cleanliness and I know that there must be many plants over the nation which would be classed in the same category. Those operators are to be complimented for having clean operations and for respectable premises. I feel that everyone should have an extracting plant which he would be glad to show and I am sure if everyone would operate with that in mind that the effect would be felt in the increased consumption of honey.

The Colorado Honey Administrative Committee, which operated under the Colorado Marketing Act in conjunction with the Colorado Beekeepers Association, has been very active with suggestions for sanitary measures in extracting plants and has made definite recommendations with request that beekeepers over the entire state make a serious effort to comply.

Sell Young Folks on Honey . . .

A few days ago two high school girls stopped to get a few notes on honey bees for their biology class. I suggested an observation hive in the class room but the teacher thought first she would like to bring the class to our honey house for a talk on bees and honey. There I had an observation hive of bees, with the queen marked so the students could find her. I talked mainly on

the importance of honey bees as pollinators as we live in a farming area. The class saw combs of honey, extracted honey, comb honey, beeswax, and I demonstrated uncapping and extracting. As the class' one-hour period was about over, my wife came in with a bushel basket full of honey pop corn balls wrapped in paper. Those kids really went for that.

Now what good does this do me?

Well, I'll tell you. After school a lady stopped in and bought a 5 lb. jar of honey because her son was with the class that afternoon. I think I sold that evening a 5 lb. jar of honey to the family of every one of those kids plus a few farmers who wanted bees on their farms next year.

This is a drop in the bucket compared to what we can do with young folks. Try it.

R. L. Livermore, Belle Center, Ohio



Education or Regulation

by George H. Rea

Formerly Beekeeping Extension Specialist
U.S.D.A., New York, Pennsylvania,
and North Carolina

BOTH must have a part in this matter of sanitation in honey houses and the marketing of honey of higher quality, by thousands of beekeepers without sufficient training or equipment to do the right kind of a job. The task ahead is not an easy one and as highly important as it is, it should be approached with caution and a full understanding of the difficult problems involved.

We might consider, first of all, the basic importance of a wide distribution of honey bees all over the farms of America as an almost indispensable factor in our food producing program, developed by close association of men and honey bees and the greatest on the face of this earth. Let us do nothing to discourage the farmer beekeeper and the thousands of other small beekeepers whose bees do millions of dollars' worth of pollination and consequent food producing each year, on these farms. This applies to many kinds of fruits and garden vegetables and seeds, the reseeding of the clovers in the farmers' pastures and at the same time provides a supply of nature's finest sweet food for his family and perhaps some for sale. Workers in the field of beekeeping have observed that in places where the bees have disappeared from the farms, seed and fruit crops have suffered heavily. The ravages of bee diseases and unwise management of the bees have been the chief causes of the great reduction of honey bees on the farms.

The small beekeeper, whether on the farm or in the city or small town is not likely to have much of

a honey house if any at all. Because many of them produce section comb honey or a small crop of cut comb honey, their honey house space and equipment need not be extensive nor expensive. But it should be clean and inviting to any customers who happen to pay him a visit. Such a workroom should be separate from the home and other buildings. All windows and doors should be screened to keep out flies and other insects, it should be mouseproof and at times made as nearly airtight as possible while the honey combs are being gassed for wax moth control. Such a workroom need not be expensive in proportion to its importance in the care and marketing of clean and attractive comb honey. Honey houses are often too small and this factor should be carefully considered when building one. It is much easier to keep a room clean and neat if plenty of space is provided. For best results in handling and keeping honey, all honey houses must be provided with adequate heating facilities and heat control.

The producer of extracted honey, small or great, has problems mostly all his own from the time he removes the honey from the hives until it is eaten by the consumer. These need not all be discussed in detail here but must have due consideration in behalf of both the producer and the consuming public. Here the producers, the beekeepers' cooperatives and independent honey packers seem deeply involved in the same problems regarding the necessity of passing on to the consumer a product that is sanitary and appealing to the eye and taste.

In the problem of honey house sanitation, the extracted honey producer has a definite obligation that is being filled in a most complimentary manner by many and just as seriously being neglected by others. Where is the honey buyer who wants to pay top price for extracted honey that has a scum on top of it that includes propolis, beeswax and parts

of bees' bodies and perhaps other foreign materials? Such honey has already lost most of its delicate flavor and has added to it the objectionable flavors from the foreign matter. Of course, honey extracting is a messy job. Honey drops on the floor, sticks to the hands and clothing and gets smeared around everywhere, it seems. Its odors attract insects including houseflies and roaches.

It seems, then, that honey house sanitation must first of all include the exclusion, as far as is possible, of all insects and animals including the house cats and dogs that are sometimes found there. It seems also that because honey does acquire the flavors and odors from the air and materials to which it is exposed, all persons handling and processing it should be very careful to wear clean clothing and be clean in their habits while working with honey. The prompt straining of all foreign bodies from the honey and its prompt sealing in containers as soon as processed surely must be an important part of this whole discussion about honey house sanitation, because it all has to do with the delivery of a sanitary and appetizing product to the consumer. How refreshing and encouraging it is to visit the beekeeper whose honey house and honey processing provides these desirable qualities. The beekeepers who attended the Virginia Beekeeping Short Course in Winchester on July 9-10-11, 1953, enjoyed such a pleasant event when they visited the modern and very sanitary honey house of H. L. Maxwell, at Berryville, Virginia. The Maxwell honey house is an outstanding example of what the extensive honey producer can do to impress the public with the importance of beekeeping and of honey as a desirable food.

How to go about a honey house sanitation reform should be a matter of very careful consideration and planning before any move is made.

Honey markets can be hurt if the public is impressed with the idea that honey as they now buy it is unsanitary. A lot of publicity might do much harm. Such as happened when the Wiley canard about comb honey was extant, many years ago. If and when regulatory provisions are made, great care should be taken not to drive beekeepers out of business because of excessive costs of new houses and equipment. This applies especially to the small beekeepers whose bees are so important in any community. With the small margin of profit even in the commercial honey crops, some of the extensive producers might run into financial difficulties if drastic changes were demanded. Much sympathetic understanding and moderation in the demands for certain kinds of equipment and the materials to be used in honey house

construction; the floors, the inside lining of the walls, and the sanitary facilities for the workers must all be taken into careful consideration. It surely would be a serious mistake for our national or state associations to jump into a headlong and drastic reform attempt in the near future.

Is it farfetched to comment that, in this greatest of all countries, freedom of the individual from domination by the state is one of our strong foundation stones? So in this case of honey house sanitation as in everything else in our society, the factors to be emphasized and used first of all should be education, cooperation, and sympathetic understanding. It seems to me that in states where a beekeeping educational program is already in progress, a lot of education in this matter of honey handling can be em-

phasized more and more in the field by the extension beekeeper and the bee inspectors and at the college, by extending the facilities of the research and teaching staff where necessary. Some states are well equipped for such an emphasis regarding honey and honey houses. Other states are not so well equipped but the beekeepers should make determined efforts to have it. Our national and state associations could profitably make an extra effort to promote such an educational program over a period of years even to the extent of issuing plans and instructions through the extension service, farm papers, magazines, etc. Basically, beekeeping research and teaching is all too little supported by the beekeepers themselves in most states. Let us first educate and then legislate where and when necessary.



Shall We Have Our Own Sanitation Code or Shall We Have a Tougher One?

by H. A. Schaefer

President, American Beekeeping Federation

Not long ago, at a beekeepers' meeting, after a honey handling code had been discussed, a part time producer indignantly informed me that all a Sanitation Code is for is to put the small fellows out of business and that it is being engineered by the commercial honey producers. At later meetings and through letters that have come to me, it seems that this one producer is not alone in his assumption. Even some of the large commercial producers share his opinion.

My reply always has been that the small producer does not need to fear the large producer because the man with many colonies has an outfit to care for his honey that costs many times what the small man's outfit costs and a strict Sanitation Code, if enforced, would be extremely hard

on the large producer.

Honey is a food. The food inspectors have turned to honey because some honey that is below standard has come to their attention. The inspectors think of milk when checking honey. So they want beekeepers to handle honey just as milk is handled in a dairy. I hear of a case where food inspectors wanted the honey extractor and the pipes to the tanks cleaned and taken down every night.

Would this work in a honey house? Such extreme regulation prompted fast action on the part of several state associations to help formulate a suggested code that would be workable and not a burden to beekeepers.

The State Apiary Inspection Service consented to inform the beekeepers in these states to carry out the enforcement of the Code during an educational process. The inspectors are the logical men to do this. They know the beekeepers' problems and make many contacts during the

course of their regular work. The apiary inspectors of America are to be commended for their time and effort to help in bringing this serious situation to the attention of the honey producing industry through their suggested Honey Sanitation Code (page 255, June 1953).

The American Beekeeping Federation at San Jose, in January, 1953, adopted this suggested code as a means of guiding and helping the industry to a uniform code throughout the nation. This code may not be the answer at present, but it is better than the strict dairy rules some food inspectors want to enforce in honey houses.

If the honey producers do not act to help formulate a Honey Handling Code in their state, then the Food Inspectors will eventually step in and use their rules—and their rules are tough. The officials of the Federation feel that this is a service to the honey producer; to alert them to the drastic action which may be taken by the Pure Food Inspectors.



U.S.D.A. Undergoes Extensive Reorganization . . .

Secretary of Agriculture, Ezra Taft Benson, announced a proposed comprehensive reorganization of the U. S. Department of Agriculture, designed for better service to agriculture by placing operations of the Department on a more businesslike, efficient and decentralized basis.

The American Bee Journal wonders what effects this will have on beekeeping and honey marketing? Although details relative to this are not known now, we prefer to take a constructive view that such reorganization will benefit beekeeping as well as agriculture in general. We assume, at least, that this will be true simply because honey bees through their pollination services are the key to our agricultural economy.

Apparently bees and honey again find themselves separated in three main groupings: (1) Federal-States Relations which include the Division of Bee Culture and Biological Control, the Bureau of Home Economics and Human Relations, the Federal Extension Service, Soil Conservation Service, and Agricultural Conservation Program Services. (2) Marketing and Foreign Agriculture which will absorb a major part of the marketing functions of the Production and Marketing Administration and many of the functions of the Bureau of Agricultural Economics. (3) Agricultural Stabilization which we assume will include price support and other honey stabilization programs.

The above groupings naturally appear complex to the beekeeping industry. It would appear that the Council and the American Beekeeping Federation need to acquaint themselves soon with these changes and what effect they will have upon the industry. Doubtless steps will have to be taken to ensure that bees and honey are not overlooked in this extensive reorganization. May those steps be taken with wisdom and foresight—not with a purpose that is self-centered or selfish, but with a purpose of maintaining our proper position in relation to the agricultural economy of our country.

Keep On Promoting Honey . . .

National Honey Week for 1953 now is a thing of the past; it was bigger and better than ever due to the work of the American Honey Institute, the American Beekeeping Federation and its many state beekeepers' associations, and the Food Trades Division of the U. S. Department of Agriculture. Honey packers, state apiary inspectors, extension specialists, home economists, individuals, and many others took part—a list too long to cover sufficiently here. It was a united ef-

fort—a concentrated one which spells G-O-O-D for the entire bee and honey industry.

But advertising and promotion must be continuous if it is to be most effective, so we now have the task of keeping up the good work. The months ahead of us offer us many more opportunities to promote the consumption and sale of honey.

Thanksgiving Day perhaps is the first occasion and we are reminded of honey pumpkin pie, as well as good delicious honey on hot rolls and biscuits. Christmas brings to us the opportunity for sale of many interesting and attractive gift packages. Honey certainly has a place in the holiday festivities. Fall and winter months naturally bring us the opportunity to promote honey on pancakes, waffles, and toast.

This is your responsibility and it is mine; this is your opportunity as well as mine. Let's keep on promoting HONEY—Nature's finest sweet! The combined efforts of every individual engaged in the beekeeping industry can sell all the honey we produce and then some.

A New Antidote For Bee Stings . . .

The beekeeping profession is glad to receive the good news that another antidote for those susceptible to bee stings has been found. The story about this antidote will appear in a later issue of The American Bee Journal.

This antidote is a combination of ephedrin and amytal and can be obtained in capsule form from any drug store. We are informed it will not deteriorate in a reasonable time if kept in tightly stoppered bottles.

One of the serious handicaps to the keeping of bees is the general fear by people of being stung. This is true whether or not these people would suffer any very serious discomfort if they were stung. But it also is true that certain people are hypersensitive to even a single bee sting, sometimes to the extent of it being fatal.

Thus, it behooves everyone in the profession of beekeeping to take every precaution to prevent people from being stung by honey bees. This should certainly include obtaining a small supply of these capsules and carrying them at all times; it should certainly include telling others about this antidote—in seeing that the editor of your local paper publishes a brief note.

Such efforts certainly will be well worthwhile if it will save a single life; such efforts also will improve your relationship with those in the community in which you live.

Current Reading

Conducted by
M. G. Dadant



Chasse et Capture des Abeilles

Abbe J. Sirera of Bagnoles (Aude) France makes a contribution to beekeeping literature in his new book, paper bound, 200 pages in that he deals with the subject in a rather different manner than the ordinary book on bees.

The first part of his book is not dissimilar to many other bee books in taking up the behavior of individual and colony. The second part deals with hunting and capturing bees as the title of the book indicates. Conditions of native beekeeping in Asia, Africa, Oceania, and other sections as well as methods of hunting and capture are described. We assume that \$2.00 sent to the author as above would bring a copy to any interested reader. In French, of course.

Another Honey Plant Book . . .

Jean Hurpin is the author of "La Flore Mellifere de France" a 120-page paper-bound book edited by Editions de la Capitelle at Uzès (Gard) France and selling for \$1.50.

The author gives a good interpretation of the availability of each plant in various parts of France, with blooming period, types of soil, and quality and value of nectar from each plant. He stresses soil types and humidity and temperature as being particularly tied in with nectar secretion.

Mr. Hurpin has written several other bee books among which at our hand is "La Cite Merveilleuse," a similar sized book treating of the honey-bee colony.

Utah Alfalfa Seed Production

According to G. F. Knowlton of Utah Extension Service "Know How" in the Delta tract of Utah, probably the greatest concentration of Alfalfa seed production in the world, has been the means of rapidly increasing the seed production of this area. In 1947 both wild bees and honeybees had been decimated by sprays in this area. Wild bees are still

scarce, but honeybees are filling the bill. Now, ten to eighteen thousand colonies migrate into the Delta tract each year, many of them coming from California. Even with the migrants there are not yet enough colonies to produce a maximum alfalfa seed crop. Sprays are put on intelligently to co-ordinate with honeybee pollination.

Story a Day . . .

The chain food stores are launching a new weekly with the above title. Its initial number was out on Sept. 25. The back inside cover entitled "Alice and Andrew" is a well told conversation about both comb and extracted honey. The 32 page booklet with a colored attractive cover is made to attract the small youngster. This issue has readable material on aeroplanes, child's toys, taxis, woods, bears and school.

It will be distributed by some 3800 chain food stores.

Pastures for Georgia Coastal Plain . . .

Bulletin 27 of Georgia Coastal Plain Station discusses various seed mixtures for summer, winter, permanent and temporary pastures. Mixtures of a smaller number of grasses and legumes are recommended. The clovers, lespedeza, appear prominently as recommended for permanent pastures, including ladino, crimson and white clover and annual lespedeza.

Dutch Honey Recipes . . .

An attractive little 16 page booklet of recipes from J. K. Vermaas in Netherlands is entitled "HON-ING." A description of various Dutch honeys is followed by honey uses-health-medicine; and this by favorite recipes. Unfortunately our use of the Dutch language precludes even trying the recipes ourselves. The Low Countries are much more versatile generally in the uses of honey than are we in the Western Hemisphere.

Iowa 1952 Report . . .

The Iowa report for 1952 has appeared. It has 96 pages and is available on request from F. B. Paddock at Ames, Iowa. It arrived later than usual.

Mr. Paddock's own report as State Apiarist for Iowa would indicate that disease no longer holds the spotlight. Most of his report has to do with colony manipulation and pollination and seed production including results of tests made under his direction in Iowa. Percentage of disease has been reduced to 3.6 percent on some 31,000 colonies checked in the more difficult counties.

Three of the articles included in the report have to do with pollination, spraying and seed production (Black of Oregon, Menke of Washington, and Leppik of South Dakota).

John Jessup describes his trip to England, Dr. Fraser contributes two British articles, Moffett of Colorado reports on European foulbrood and John F. Long on Nosema; Milum contributes on sulfa tests and on soybeans for honey; Haynie on 4-H clubs and Jelly making; Melvin Pellett on honey plants, Eckert on mechanical helps to moving, and Tate of Mississippi on Queen and package production.

The report is well up to the excellence of Paddock's previous efforts, and is nicely illustrated.

Handling Cappings . . .

Circular 171 of Ontario Agricultural College at Guelph deals with handling cappings. The 10 page booklet describes various methods of handling cappings. Properly handled, the Brand Capping melter is the best. Two step handling, draining, pressing, steam box and under water boiling and pressing are discussed. Stress is laid on the necessity of avoiding overheating on account of honey scorching and injuring.

Spotlight—Beeswax . . .

Dr. Fraser of England commenting on our Spotlight issues says—"In Cogshall's article on beeswax it should be noted that the real method of the formation of wax was discovered by Martin John and published in his 'Ein Bienenbuchel' in 1684. This book has been lost but the part about beeswax was included in Matuschka's 'Beytrage zur Kenntnis der Bienen', Zullichau 1804. It was discovered a second time by Hornbostel who published his conclusions in 1744."



A Visit to Britain

by John G. Jessup

WE are two days out of England aboard the Veendom. The sun is shining down from a clear blue sky on the deep blue Atlantic. Surely the sea was never more smooth—not a white cap anywhere. Relaxed and at peace, it seems that all the world should be likewise. Incredible it seems that the ship giving us this impression was not so long ago in the possession of an enemy for five years.

As a landlocked midwestern beekeeper, I had felt beekeeping in a far away country would somehow be different. A visit with beekeepers in England and Scotland quickly dispelled this illusion as I found the same principles applied and the same problems, as at home: stock improvement, wintering, swarm control, diseases, marketing and pollination. In fact, there is surely as much difference in beekeeping practice in the various sections of the U. S. as between our methods and theirs.

The majority of beekeepers in Britain keep bees as a hobby having one to fifty colonies, but they do have commercial beekeepers.

To my surprise, we found considerable heather in southern England as well as the vast and luxuriant acreage of the Scottish Highlands. Other major sources include white Dutch clover, red clover (which produces surplus under favorable conditions), lucerne (alfalfa), and lime (very like basswood).

They have no sweet clover, Hubam or buckwheat. The admitted crops run about half what we expect in Iowa and after spending a summer in England, one is forced to marvel the crop is that much. During our stay, July and August, a day warm

enough for a good honeyflow was rare, indeed. Although it was reportedly a dry summer, pastures and roadsides were green and luxuriant with white Dutch clover still blooming in late August. Part of almost every day was cloudy and only in the sun were we comfortable without a coat or sweater. The sun did not shine during our week in Scotland and our hostess remarked that if the temperature got above 60 it was too warm to be comfortable. There stood thousands and thousands of acres of heather but the bees could gather very little nectar as it was so cold and rainy. We were told that with favorable weather they worked the heather avidly and bees coming home over the stone wall behind their hives looked like a waterfall.

The hive generally used by the small beekeeper is the British Standard. However, most commercial producers use either the 10-frame Langstroth or Modified Dadant. Chiltern Honey Farm, Benson, Oxford, owned by Manley and Rowse, was the one commercial producer visited. They operate 2,000 colonies mostly in Dadant hives and for the most part they operate much as we do in Iowa. Apiaries run from 35 to 45 colonies in permanent locations. Some, however, are moved for orchard pollination in spring and also for heather in August. The one thing that struck me as different was that successful producers do not paint any of their hives. This is because paint stops the passage of moisture through the walls and in that damp climate makes for poor wintering. Anyway, since a hive will last a lifetime unpainted, why paint?

Never have I seen a central plant for extracting, storage, and bottling that appealed to me as this one. There is a building for extracting and storage of supers, one for the storage of honey after extracting, one for bottling, and a garage for trucks and cars, all built around a paved courtyard. The construction is of brick with tile roof with

everything well kept and built to last.

The Taylor Bee Supply Co. Ltd., of Welwyn, near London, has a fine plant supplying the needs of the beekeeper. This includes extractors, foundation, hives, bees, and so forth. Extractor tanks are made of a heavy gauge tin plate which we never see here in the states. Lumber in England is not nearly as plentiful as in the states. The native lumber is air dried four years before it is ready for use. They have 1,000 colonies of bees and sell 8-frame nuclei. These sell for about \$15.00 without hives, the shipping crate being returnable. Package bees were shipped in from France years ago, but there seemed to be little interest in package bees at the present time.

We arrived in the afternoon just in time for tea which was served in the office of the Managing Director. We felt royally welcomed.

Most producers bottle their honey—selling it to the consumer or grocer. Prices for a one-pound jar to the consumer is around 3/6 (three shillings, six pence, 49c) and 2/6 to the grocer. Comb honey retails for 5 shillings (70c). These premium prices are maintained by good salesmanship and a quality product. Last year Britain imported 7,000 tons of honey principally from Australia, New Zealand and the West Indies. This honey of excellent quality retails at 2/4 (33c). Due to the dollar shortage in Britain the market is closed to the U. S.

The Kent Farm Institute, located near Sittingbourne, is an agricultural school with a farm of about 240 acres. The farm is run on a practical basis to demonstrate just how the small farmer may improve his farming practices. A farmer of Britain with grade stock can secure a pure bred herd of cattle, sheep, or hogs by mating them with pure bred sires. The fifth generation may be registered as pure bred stock.

Beekeeping is one of the subjects taught at the Institute and during summer vacation a three-day beekeepers' meeting is held. It was my

good fortune to attend the meeting held Friday, Saturday and Sunday, August 22-24. It was much like our state meeting with an attendance of about 75 at each session, so I felt quite at home. One commercial beekeeper and queen breeder was on the program—Mr. R. P. Sims, of Canterbury. He lectured on queen rearing. So far as I learned, the others were hobbyists with 10 to 15 colonies. The weather was ideal. The sessions during the day were held on the lawn under the trees except when pictures were thrown on a screen to illustrate the subject.

The use of ultra violet rays to identify AFB scales was of special interest. This was demonstrated by Mr. P. S. Milne, Bee Advisory Officer, of the National Agricultural Advisory Service, Ministry of Ag. By this method scales of AFB can be identified in comb that has been broken up into small pieces. It seemed to be a quick and easy way to diagnose positively samples of suspected comb.

A hobbyist, Major H. A. Dade, A.R.C.S., Asst. Director of Commonwealth Mycological Inst., Kew, London, gave a highly scientific and well illustrated lecture on the anatomy of the bee with special relation to mating. He also had a very interesting gadget made with polar-

oid sections of plastic. This illustrated how the bee determines the direction of a nectar source and conveys this information to bees in the hive by the bee dance as explained by von Frisch.

Mr. H. S. Thompson, County Instructor in Beekeeping, West Sussex Education Committee, lectured on "Toward a Better Strain of Bees by Use of Instrumental Insemination." The instruments and methods described seemed very much the same as reported here in the states. Capt. S. Gooding, M.A.J.P., of London, who keeps bees as a hobby, gave an interesting lecture on "The Ancestry of Bees." This scientific approach, going back to the first honey bee preserved in Baltic Amber laid down 30 million years ago was received by those present with rapt attention.

The meeting opened at 9 A.M. with a break at 10:30 for coffee and cakes, listed on the program as "Elevenes," cups that cheer but not inebriate. At 4:15 the program called for "Tea, 'Never known to refuse it' Sargent." Mr. J. L. Sargent, Kent County Lecturer in Beekeeping, conducted a tour of the farm apiary. It was of special note that they are using and recommending the 10-frame Langstroth and Modified Dadant hives. All hives and supers were unpainted.

Sittingbourne, where the Institute is located, is of particular historical interest as it is on the London Road to Canterbury and the sea. Here the pilgrims stopped on their pilgrimage to the shrine of the martyred archbishop of Canterbury, Sir Thomas Becket. Here also, England's royalty maintained a suite for their overnight carriage stop enroute to Dover and the continent. Mr. Fox, a Sittingbourne hobbyist beekeeper, called to my attention that Mr. Eric Miller who preceded Prof. Paddock as State Apiarist of Iowa was a Sittingbourne man. We went to see Miller's grave in the local cemetery as Mr. Fox acted as host and guide on an interesting drive in the town and community. Mr. Fox's kindness was a good example of the sincere friendliness and hospitality we found everywhere in Britain. Driving 2,000 miles through England and Scotland in an English Austin, (on the left side of the road) we found that our harsh midwestern accent was magic. Well off the beaten track of conducted tours, our requests for aid and advice were numerous and without exception the response was for them to "go the second mile," in courtesy and helpfulness.

We leave Britain with a warm feeling of admiration for its people.

Questions and Answers

How may one judge the number of colonies any given area can maintain?

Mrs. R. W. Myers, Illinois

There is no specified way of measuring to see how many colonies could be placed in a certain area. The type of blossom available and the climate make a big difference. If good alsike fields are near, five to ten colonies per acre would not be too much for from 25 to 100 acres of clover. If you are planting for bee pasture, be sure the type of plants used will secrete well in your climate.

Can a hive be cleansed with the use of sulfathiazole in good alcohol?

W. D. Bearce, Maine

Wood alcohol was never even a fair method of sterilizing bee equipment. The best method of sterilizing equipment is by boiling it completely submerged in a solution of household lye and water for 15 to 20 minutes. Remove the equipment from

the water, rinse thoroughly with clear water, and allow it to dry completely before using again.

Feeding sulfathiazole in sugar sirup is used as a preventive of American foulbrood, permitting the bees to store sirup containing the sulfa in the brood combs.

I would like to practice some good method of swarm prevention next season. If I use the Demaree method, can I use foundation in the bottom body?

James P. Young, Tennessee

Some foundation can be used. Every beekeeper has his own way of practicing this plan. Some use some foundation and some use only drawn comb. However, in the use of foundation, I would suggest the feeding of sugar sirup unless there is a good honeyflow on, otherwise the bees will not build good straight combs, but will chew the foundation. A hive can be congested with foundation as well as when it is full of

brood and honey. Be sure the queen has plenty of space to lay. Of course, after foundation is drawn out and the queen lays in it, the comb will become dark due to the fact that each larvae raised in the cell will leave a cocoon in the cell. The more brood raised in comb, the darker the comb becomes.

I own several colonies of Italian bees. If I buy several colonies of pure bred Caucasians will they remain pure or will they mix with the Italians producing a mixed race?

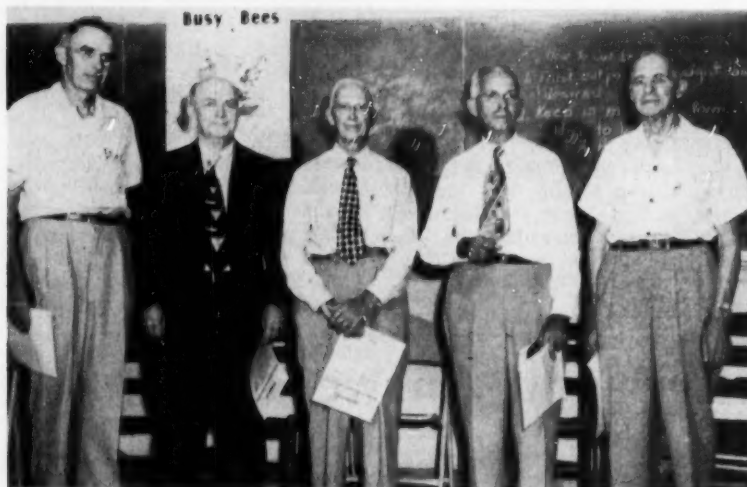
Robert E. Hamilton, Alabama

In time, the queens will be superseded in your colonies and when the new queens go out to mate they will most likely mate with drones from the other breed of bees. Then you will have a mixed strain which will probably be cross-natured. We would recommend that you keep only one strain of bees, because two pure bred strains cannot be kept pure bred in one yard.



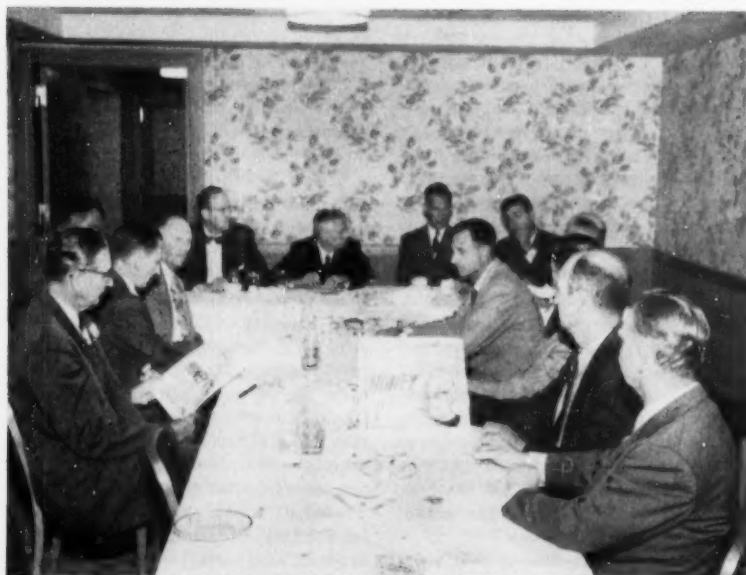
Coronation Rug

Here are W. S. Harman and Mrs. Harman, of Beech Creek, North Carolina. Mrs. Harman made a hooked rug which she sent as a "Coronation Year" gift to Queen Elizabeth II. The picture on the rug shows the coronation of Harold in the 11th century and was taken from the famous Bayeux Tapestry, embroidered about 1066, showing events before and during the battle of Hastings when William the Conqueror landed in England in 1066. The idea of the rug was due in part to Richard Chase who lives near the Harman and is well versed in the traditions of the area. The first great collection of English folk songs remembered in the southern mountains was made about 1916 by an English scholar, Cecil J. Sharp, whose work in restoring our cultural heritage of songs and dances has flourished in England and in the southern mountains since his death in 1926. Both the Queen and Princess Margaret are interested in the country dances of England and the square dances of America. The Harman's being good beekeepers, give this story a real interest to all of us.



These Five

At the State Association meeting in Boone, North Carolina, life membership certificates were awarded to these men for service to the beekeeping industry—"for standing the stings, poor crops, disappointments, and joys of their chosen profession" - - - W. A. Stephen, Extension Beekeeper for the state and Ralph Mills, of the Visual Aids Dept., N. C. State College, both sent similar pictures so the credit belongs to them. Let's label them "Who's Who." Left, Walter T. Kelley, Editor of Modern Beekeeping; Robert L. Sloan, County Agent (retired), Burke County; George H. Rea (see his article on page 444); G. H. Cale (Glory Hallelujah), Editor of American Bee Journal; and M. J. (Jack) Deyell, Editor of Gleanings in Bee Culture. (We learn from Steve and from Mrs. Sloan that Mr. Sloan, eleven days after this meeting, passed away. He had been in failing health for a couple of years.)



California Honey Advisory Board

A "task force" group of retailers for the Southern Cal. Retail Grocers Association and the Cal. Chain Store Assn., met recently with members of the Cal. Honey Advisory Board to plan the month long October honey publicity campaign, ending in National Honey Week. For the first time, the beekeepers and the packers launched together a plan to increase honey consumption. Radio, television, newspaper ads in fifty leading papers, with the kick-off in two luncheons for radio, television, and editors in Los Angeles and San Francisco. For the retailers: Henry Ludke (Safeway Stores); Geo. Purcell (Van de Kamp's Holland Dutch Bakers); F. G. Jessup (Market Basket); Erich Stuewe (Sec. Cal. Chain Stores Assn.); Worth Bernard (Braun & Co.). For the Honey Industry: Ray Reed (Chairman, Cal. Honey Adv. Board); Kermit Wilson (Board Ch.); Wood Littlefield and Clarence Ward (beekeepers); Wendell Shore (Ch. Ad. Com.); David Knox (Mogge-Privett, Inc., Adv. Agency); with Chas. Groghan (Food Distribution, U.S.D.A.)

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2 lb. Jars, per reshipping carton of 12	\$.80	.68	11 lbs.
1 lb. Jars, per reshipping carton of 24	1.20	1.00	11 lbs.
1/2 lb. Jars, per reshipping carton of 24	.95	.92	9 lbs.
2 1/2 lb. Sq. Jars for chunk honey, ctn. of 12		1.10	12 lbs.
Sample mailing bottle — 15c each		\$1.20 per doz.	

TIN CONTAINERS — Friction Top Pails with Bails

	Price	Sh. Wt.
5 lb. — Per Carton of 50 — 13c each	\$ 6.00	27 lbs.
5 lb. — Per Carton of 100 — 13c each	11.65	46 lbs.
10 lb. — Per Carton of 50 — 18c each	8.75	44 lbs.
60 lb. Square Cans, in bulk, each	.62	3 lbs.
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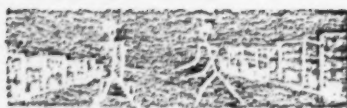
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MEETINGS

ABBA and SSBF

Atlanta, Ga., November 2-3

Man, that ain't no swarm!!!—they are just headed for the joint meeting of the American Bee Breeders Association and the Southern States Beekeeping Federation to be held at the Atlanta Biltmore Hotel on Monday and Tuesday, November 2-3 in Atlanta, Georgia!!!

PROGRAM

Monday, November 2:

- 8:30 Registration
- 9:30 Call to Order
- Invocation: Rev. Fred L. Glisson
- Welcome:
- Roll Call—By States
- 10:00 Presidential Address — Leslie H. Little, President, ABBA.
- 10:30 "The American Honey Institute—Its Accomplishments and Purposes"—Mrs. Harriet M. Grace, Director, American Honey Institute
- 11:00 The Value of Bees to the Food of Mankind—R. B. Willson, R. B. Willson, Inc.
- 11:30 Preliminary Business Sessions and Appointment of Committees: ABBA, SSBF and Georgia Beekeepers Association.
- 12:30 Recess
- 1:30 Call to Order
- 1:35 Beekeeping Today—Where Are We Headed?—M. G. Dadant, Dadant & Sons, Inc.
- 2:00 Aims and Work of the National Honey Council—Allen Root, A. I. Root Company.
- 2:30 "Do We Need More Beekeepers?"—Dr. J. I. Hambleton, USDA, Division of Bee Culture & Biological Control.
- 3:00 Symposium on Nosema Disease—Dr. W. A. Stephens and Dr. C. L. Farrar, Leaders.
- 3:30 The Bee of the Future—Dr. C. L. Farrar, U.S.D.A., North Central States Bee Culture Laboratory.
- 4:00 Announcements
- 4:10 Adjournment
- 6:30 Real Southern Barbecue — "Honey Chile!"

Tuesday, November 3:

- 8:30 Call to Order
- Introduction of Guests

- 8:40 Presidential Address — Dr. David Dunavan, President, SSBF.
- 9:00 Symposium — The History of the Southern States Beekeepers Federation — Leslie M. Lewis, H. S. Foster, and Lynn M. Dewey.
- 10:00 Glass and Honey—George B. Dakan, HAZEL-ATLAS Glass Co.
- 10:15 Honey and The Production and Marketing Administration — Harold J. Clay, U.S.D.A., Production & Marketing Adm.
- 10:45 The Changing Picture in American Beekeeping—Walter Kelley, the Walter T. Kelley Company.
- 11:15 Packing and the Consumer—Jon Clement — OWENS-ILLINOIS Glass Company.
- 11:30 Apple Pollination in Virginia—G. W. Vest, G. B. Lewis Co.
- 12:00 The American Beekeeping Federation—Henry A. Schaefer, President, A.B.F.
- 12:30 Recess
- 1:30 Call to Order
- 1:35 Final Business Meetings, ABBA, SSBF, and Georgia State Beekeepers Association. Committee Reports. Election of Officers. Selection 1954 Meeting Place.
- 2:30 The Future of the Package Business—Harvey F. York, Jr., York Bee Company.
- 3:00 Shipping of Package Bees—Representative, Railway Express Agency.
- 3:30 Announcements.
- 3:40 Final Adjournment.

In addition to the above, it is planned for the ladies to visit a TV show at one of the local studios; and also to attend a tea at the South's leading department store, Rich's—and any lady that goes to Rich's is in "heaven!!!"

Registration fees for the convention will be \$2.50 each; included in registration fee is cost of Barbecue Supper on Monday evening. Suggest advance registrations be made for hotel room if accommodations are desired at the Atlanta Biltmore; single room, from \$5.00 to \$9.00;

double or twins, \$8.00 to \$12.00; suites, \$15.00 up. Advance registrations can be made by writing to Mr. Charlie Bird, Atlanta Biltmore Hotel, Atlanta, Georgia.

The only thing the above program lacks to make it a success is YOUR presence—and we know that you are taking care of that!!!

See you in Atlanta on November 2-3—BUZZZZZZZZ!!!

W. B. Crawford, Jr., President
North Georgia Beekeepers Assn.
2168 Venetian Drive, S. W.
Atlanta, Georgia.

Southern Bee Inspector's Meeting Atlanta, Ga., November 2

In connection with the coming Atlanta Meeting on November 2nd and 3rd of the Southern States Beekeepers' Federation, it is planned to have a special get-together meeting of all Bee Inspectors of the Southern States.

A luncheon meeting at noon, Monday, November 2 is planned. It is suggested that each inspector comes prepared to air his views on either or both of the following topics:

1. The upsurge of European foulbrood and how to meet it.
2. Bee disease laws of the southern states.

The advisability of forming an organization of southern inspectors will likely be discussed at this meeting.

David Dunavan, President
Southern States Beekeepers' Federation

Ohio State Columbus, Dec. 7

The Ohio State Beekeeping Ass'n. will hold its winter meeting Dec. 7 at 9:15 A.M. in the State Office Building in downtown Columbus, Ohio.

A regular business meeting will be held, with election of officers for the coming year and payment of membership dues. The beekeepers of Ohio owe it to themselves to attend and take part in this meeting. Door prizes. Bring the ladies too.

R. L. Livermore, Sec.
Belle Center, O.

(Continued on page 457)

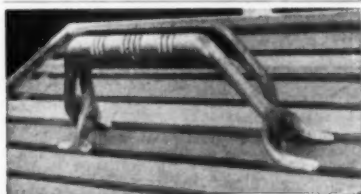
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For all uses, beginner or professional. 160 pages.	
AMERICAN HONEY PLANTS—Pellett	6.00
An encyclopedia of flowers. 460 pages.	
HONEY IN THE COMB—Killion	3.00
Authority on comb-honey production. 130 pages.	
FIRST LESSONS IN BEEKEEPING—Dadant.	1.00
127 pages	
THE FLYING NATION—Crowder.	2.50
156 pages	
BETTY THE BEE (for children)	.50
BEEKEEPING IN BRITAIN—Manley.	3.00
450 pages	
POLLEN LOADS OF THE HONEYBEE—Hodges	3.00
HONEYBEE—Mary Adrian	2.00
WORLD LIST OF BEE RESEARCH WORKERS	.75
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BETTER QUEENS—Jay Smith	4.00
HONEYBEES AND THEIR MANAGEMENT—Shaw-Whitehead	3.50
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THREE BANDED ITALIAN QUEENS—Good workers. Select untested, 1 to 25, \$1.00 each; 25 up, 90c. Alamance Bee Co., Graham, N. C.

YANCEY HUSTLERS—Three-band Italians. They get the honey. Queens balance of season, \$1.00; \$10.00 dozen. Caney Valley Apiaries, Bay City, Texas.

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100 COLONIES—3 shallow supers each. Good North Georgia sourwood locations. Electric extractor and uncapping machine. Selling because of failing health. Box J. M., c/o American Bee Journal.

15 10-frame hives of bees, 40 deep extracting supers, 30 comb supers, 30 shallow extracting supers, 30 queen excluders, honey tubs, 3-frame extractor, honey cans, plus many other additional items. All equipment in good condition. Guaranteed disease free. \$200. David Roberts, New Windsor, Illinois.

FOR SALE—Complete 600 colony outfit in Northern Alberta in clover seed growing district. Wonderful spring build-up area with continuous clover and fireweed honey flow until autumn frost. Land, buildings and all extracting equipment included. Also 1952 two-ton truck, if desired. Write Box 39, c/o American Bee Journal.

FOR SALE—16 colonies bees with winter stores, extracting supers. No disease. For particulars write to John Lepinsky, Rt. 1, Box 14, Weyauwega, Wis.

FOR SALE—30 colonies of bees, each in double deep brood chamber. Extractor, practically new, tanks, knife, etc. Edith Miller, 303 Logan Ave., Waterloo, Iowa.

25 2-story 10-frame colonies bees. Leo Cushman, Plymouth, N. Y.

FOR SALE—If taken at once, 2 double 10-frame stands bees, 2 empties, 10 supers, 400 split sections, some section holders, foundation and starter. Price \$45. Roy Berry, Fowler, Ind.

MODERN HONEY PACKING PLANT for sale in Central Texas. Packing approximately one million pounds yearly. Interested parties write Box 43, c/o American Bee Journal.

FOR SALE—One of oldest package bee and queen outfits in Alabama. A going concern with good reputation. Health and age reason for selling. Box C. A., American Bee Journal.

FOR SALE—New electro-flo filling machines. Model SA100—\$365.00. Model SA200—\$285.00. F.o.b. Hancock Honey House, Hancock, Iowa.

HONEY and BEESWAX WANTED

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 2613 South Yates Ave., Los Angeles 22, Calif.

WANTED—Water white clover honey, truck or car lots; also light amber. Mail sample and lowest cash price. Write Stoller Honey Farms, Latty, Ohio.

BEEWAX AND HONEY WANTED in trade for supplies or cash. Hodgson Bee Supplies Ltd., 565—13th Ave., New Westminster, B. C., Canada.

WANTED—Amber or off-grade honeys. Give price and thorough description. R. Griggs, Hancock, Iowa.

Cash paid for light colored honey. Write Paul Oblack, Loyal, Wis.

Copy for this department must reach us not later than the tenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rate of Classified advertising—13 cents for each word, letter, figure or initial, including the name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on comb must guarantee them free from disease or certificate of inspection from authorized inspector. The conditions should be stated to insure that buyer is fully informed.

COMB HONEY cut and sections in window cartons wrapped in cellophane paper. Also all grades of extracted, carloads or less. Send sample and best price delivered to Honeymoon Prod. Co., 39 E. Henry St., River Rouge 18, Mich.

WANTED—Extracted honey, white or light amber, in 60's. State price in first letter. Ed. Heidt, 1004 W. Washington St., Bloomington, Illinois.

WANTED to buy new crop honey in all grades. Highest cash prices. Submit samples. Schuitz Honey Farms, Ripon, Wisconsin.

WANTED—Chunk comb and extracted honey. Victor Honey Farms, Rockwall, Texas.

HONEY WANTED, in 60's, all grades. Send samples, advise quantity and best price. A. I. Root Co. of Syracuse, 1112-14 East Erie Blvd., Syracuse 3, N. Y.

WRITE FOR SHIPPING TAGS and current quotations on rendered beeswax. Any amount from one pound up bought. If you have 25 pounds or more, save 25% by letting us work it into foundation for you. Walter T. Kelley Co., Clarkson, Kentucky.

CASH PAID for white and amber extracted honey. Send samples and state quantity available. Prairie View Honey Co., 12303 Twelfth St., Detroit 6, Mich.

WANTED—Extra white and light amber honey. Let us ship you the containers. Sell us your honey for CASH on delivery. The Hubbard Apiaries, Manufacturers of Bee Supplies and Comb Foundation, Onsted, Michigan.

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FOR SALE—250 cases comb honey. Jacob Bender, Fairbury, Illinois.

CLOVER HONEY—White, 16c lb. in 60's; two or more 60's, 15c lb. F.O.B. Asa Buren, Rt. 1, Cullom, Ill.

CLOVER, mixflower poplar extracted honey. Ralph Gamber, 910 State, Lancaster, Pennsylvania.

CLOVER HONEY—White extracted, 17c per lb. in sixties; 5 or more 60's at 16c. Heated and strained, 18c in sixties, 17c 5 or more. Lose Brothers, 206 E. Jefferson St., Louisville, Ky.

SUPPLIES

BEE SUPPLIES—Tin packages, 10 sizes glass jars, paper shipping supplies, window cartons and other items. Roscoe F. Wixson, Dundee, N. Y.

Electro Filling Machines, users and distributors. Write Stoller Honey Farms, Latty, Ohio.

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POSITIONS AND HELP WANTED

WANTED—Someone to work three to four hundred hives on shares. Must have own truck. My age will not let me go on. Box 989, Cocoa, Fla.

MAN with migratory experience to help operate bees for package bees and queens, pollination service and extracted honey. Can start right away. Troy H. Nance, 3764 Jeffrey Ave., Sacramento, Calif.

WANTED—Reliable man to operate outfit of bees on share basis. Box K, c/o American Bee Journal.

HELP WANTED—Experienced man preferred. Good position for right party. Give references. Howard Weaver, Navesota, Texas.

WANTED

WILL PAY CASH for bee equipment with or without bees. No junk. Prefer white honey location. Box 24, c/o American Bee Journal.

SOUTH DAKOTA BEEKEEPER would like to buy 100 10-frame hive bodies of drawn combs. Box 33, c/o American Bee Journal.

WANTED—Several hundred standard ten-frame supers, with or without frames. Must be clean. Fred Blummer, Arnold, Nebr.

SEEDS AND TREES

HONEY PLANTS—Seeds - trees - plants. Illustrated catalogue on request. Pellett Gardens, Atlantic, Iowa.

MISCELLANEOUS

SECTION COMB HONEY production procedure steps—50c. Glossary of Beekeeping Terms—50c. United Industries, Dept. K, Box 449, Madison 1, Wis.

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information of range sheep than any magazine published. Subscription \$1.00. Hotel Cactus, San Angelo, Texas.

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Meetings . . .

(Continued from page 454)

Alabama Annual Montgomery, Nov. 10

Alabama Beekeepers Association will hold its annual meeting in the Senate Room of the Capitol Building in Montgomery, Alabama, November 10, 1953.

Prominent speakers for the occasion include Jim Hambleton, Chief of the Division of Apiculture and Biological Controls, Beltsville, Maryland; M. G. Dadant of the Dadant and Sons, Hamilton, Illinois; Dr. C. L. Farrar, U.S.D.A., North Central States Bee Culture Laboratory, Madison, Wisconsin; W. E. Harrell of Hayneville, Alabama; W. A. Ruffin, Auburn, Alabama; George Blake, Auburn, Alabama; and others.

F. E. Guyton, Sec.-Treas.

XVth International Beekeeping Congress

One of the finest experiences that anyone who is interested in beekeeping can have is to attend an International Congress. It offers the opportunity of seeing and meeting many of the best known international authorities. Delegates from all over the world meet in a friendly group and many warm friendships develop. Fine programs, which are ably interpreted, stimulate thought and interest.

In addition to the Congress, with its varied program, there are unforgettable pleasures for those who plan a tour to include points of interest for beekeepers in several

European countries. Words fail to convey the thrill that comes to those who see for themselves Scottish apiaries tucked among the purple heather of the Highlands; Brother Adam's famed apiaries at Buckfast Abbey and on Dartmoor; the picturesque Bee Park at Amsterdam, and the countless beauties and interests of the unfolding landscape wherever they travel. It is wonderful to brush shoulders with the past, and, at the same time, glimpse the future. Europe gives travelers that opportunity, in many unique ways.

The next Congress will meet in Copenhagen, Denmark, August 30 to September 4, 1954. Most interesting experiences and warm hospitality await all those who attend. If there is sufficient interest, a tour will be arranged.

The itinerary for an American group has not been definitely set, but the following is suggested: Sail from New York to France. Visit Paris and points of interest. From Paris to Brussels and vicinity. From Brussels to Amsterdam. Visit famous Bee Park and other places of interest. Sail from Holland (or fly—optional) to Copenhagen. Attend International Congress. Tour Denmark as suggested by Congress. Cross from Copenhagen to Stockholm and, following visits to points of interest in Sweden, proceed to Oslo. After visiting Norway, leave for Scotland, to see the Highlands, Edinburgh, etc. Thence to London and vicinity. Sail from Southampton.

Iowa Annual Ames, November 17-18

The Annual Meeting of the Iowa Beekeepers Association will be held in Ames on November 17 and 18. The program which is developing assures a lively discussion of timely topics.

F. B. Paddock
Extension Entomologist

California Annual San Jose, Dec. 1-3

The annual convention of the California State Beekeepers Association has been scheduled for San Jose on December 1, 2, and 3, with meetings taking place in the headquarters hotel, the Saint Claire. The California Bee Breeders Association, The Ladies Auxiliary, and the County Apiary Inspectors usually hold meetings at the same time.

The program will feature discussions of honey house standards, pollination practices and pest control, and marketing problems. Of interest to many California beekeepers and to visitors from other states will be the exhibit of several different kinds of hive loaders as well as labor saving gadgets.

J. E. Eckert

Arkansas Annual Little Rock, Nov. 2

The annual meeting of the Arkansas Beekeepers Association will convene November 2 in the Woman's City Club, Fourth and Scott Streets, Little Rock. This will be a very vital and important meeting to all beekeepers of the state. Every beekeeper should be present. There will be many matters of vital interest brought before the body and the answers to these questions will be living with the interest of all beekeepers for a long time to come. Your dues for 1953 were due last January. Pay them up and make your plans to attend. It will be a one-day meeting. It will convene at 9:30 A.M. and close at approximately 9:30 P.M. All who are interested in any phase of beekeeping are invited and will be welcome.

Illinois Annual Springfield, Nov. 6-7

The annual convention of the Illinois State Beekeepers Association will be held at St. Nicholas Hotel in Springfield, Illinois, on 6-7 of November. This will be an outstanding meeting with our most distinguished speakers on the program. Banquet will be held 6:30 p.m. on the 6th, everyone is invited to attend.

Hoyt Taylor, Sec.

Westchester County, N. Y. Nov. 15

The Westchester County Beekeepers Association will hold its next meeting at 2:30 P.M., Sunday, Nov. 15, at the Odd Fellows Hall, 20 Lockwood Ave., New Rochelle, N. Y. At this meeting our members are given awards for the best entry in our honey show in the following classes: dark, amber, light extracted; chunk, comb, and the best 1 lb. wax display. Come and let's hear how you made out this year, and bring a friend. Refreshments always at the end of the meeting.

Carlton E. Slater, Publicity

Middlesex County, Mass. Waltham, Nov. 28

Middlesex County Beekeepers Association (Mass.) will hold its regular indoor meeting at the State of Mass. Field Experimental Station at Waltham on November 28, 1953 at 6:30 P.M. There will be a discussion on the subject of the National Honey Week results and pictures of beekeeping.

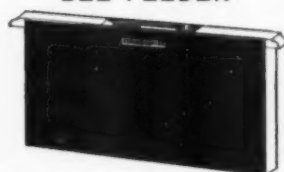
John H. Furber, Sec.-Treas.

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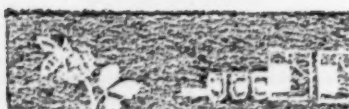
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CROP & MARKET

by M. G. Dadant

Total 1953 Crop

The list of states or parts of states in which the crop has approximated 1952 or gone beyond makes a very short list compared to those in which the crop has been short of 1952 or a complete failure.

Good crops by percentages should be as follows: Florida and Georgia 100%, Pennsylvania 120%, northern Ohio 200%, bluevine section of Missouri 150%, Arkansas 100%, South Dakota and eastern Nebraska 100%, San Luis Valley, Colorado 140%, western Montana 200%, Oregon and Washington 110%, British Columbia 150%, Manitoba, Saskatchewan and Alberta 125%. This represents percentages over 1952 but not necessarily over a normal.

The entire balance of the country will not nearly approach normal and many states are reporting less than 50% of last year's crop. The crop was improved in Texas by late rains but still fell far short of a year ago. Michigan also anticipated much more than was finally gotten although about 80% of last year was harvested. Other states faring close to normal or moderately well include Wisconsin, Minnesota, South Dakota, balance of Montana, and New Jersey.

Practically the rest of the country will run not over 60% of a year ago, some much less.

All in all, while it seems like a great drop over last year we would estimate nearly 20% drop in the complete crop although apparently Government early estimates would not indicate quite so great a drop.

Is Honey Moving?

Honey is moving fairly well although the continuance of the dry, warm weather naturally has had an effect on the honey movement. One always assumes that honey moves better when the cool fall and early winter weather arrives.

Prices Offered

Prices start generally at about support price which, of course, was

about one cent less than last year. However, except in the case of distressed lots and beekeepers unacquainted with the crop conditions, not too much honey has sold at price supports; but considerable has moved at last year's price support which would indicate a price of approximately 11 to 11½ cents per pound for white honey and 1 to 1½ cents less for amber.

On the whole, however, we believe that beekeepers are holding for just a bit more than last year's support price. Many indications show that at least a price of 11½ cents and as high as 14 cents in the central western area is being asked and in many places is being paid.

In spite of the withdrawal of the bonus for exportation, we believe that there will be little effect on the honey market and probably a stiffening as cold weather arrives and actual buying progresses.

Honey Plants

Dry! Dry! Dry! That is the report from practically all sections of the country and even though some rains have fallen spasmodically in certain southern sections, still conditions are dry. Under such conditions, particularly in the legume areas of the Central West and the Southwest, honey plants cannot be in good shape. If the Dutch white clover that extends clear into the New England states is poor, we may say that the entire Dutch white clover area shows signs that the plants are mostly dead and there will have to be prolonged rains this fall to indicate anything like a sufficient stand of Dutch white for next year.

Rains in the Texas area, however, were sufficient to boost the cotton crop somewhat and help in the planting of vetch during the fall.

On the whole, however, complaints are that it is extremely dry for

honey plants even in those areas depending quite largely upon shrubs and trees for their main crops.

Stores and Bees

As previously indicated, the fall crop was practically a complete failure and in many sections of the South and Central West, particularly, the asters and other fall blossoms are depended upon to put the bees in ample shape for stores for winter. Probably in most cases the bees will have gathered a sufficient amount to fill the brood chambers but there has in general been a good deal of feeding, and this feeding extends from the East throughout the entire central west and south into the Plains sections. Some feeding also in the intermountain territory.

On the whole, however, condition of bees seems quite satisfactory. In most areas the queens have not been sufficiently worn through heavy egg laying because of the shortage of crops and have been able to carry their colonies through into winter in quite satisfactory numbers.

We believe the condition of colonies is up to a year ago with the stores doubtful. A rigorous winter might mean many lost colonies through shortage of stores before spring and we would urge all beekeepers to pay attention either to feeding this fall or to observing their colonies as early in the spring as possible for nourishment.

Conclusion

All in all, 1953 has been far from a satisfactory year for most beekeepers. Crops have been short, honey plants have been stunted or killed by dry weather, which dry weather has continued throughout the fall in most areas. However, the northern half of the country has been much better situated than the southern half as is indicated by the crops in Minnesota, Wisconsin, Michigan, northern Ohio and into northern sections of New York.

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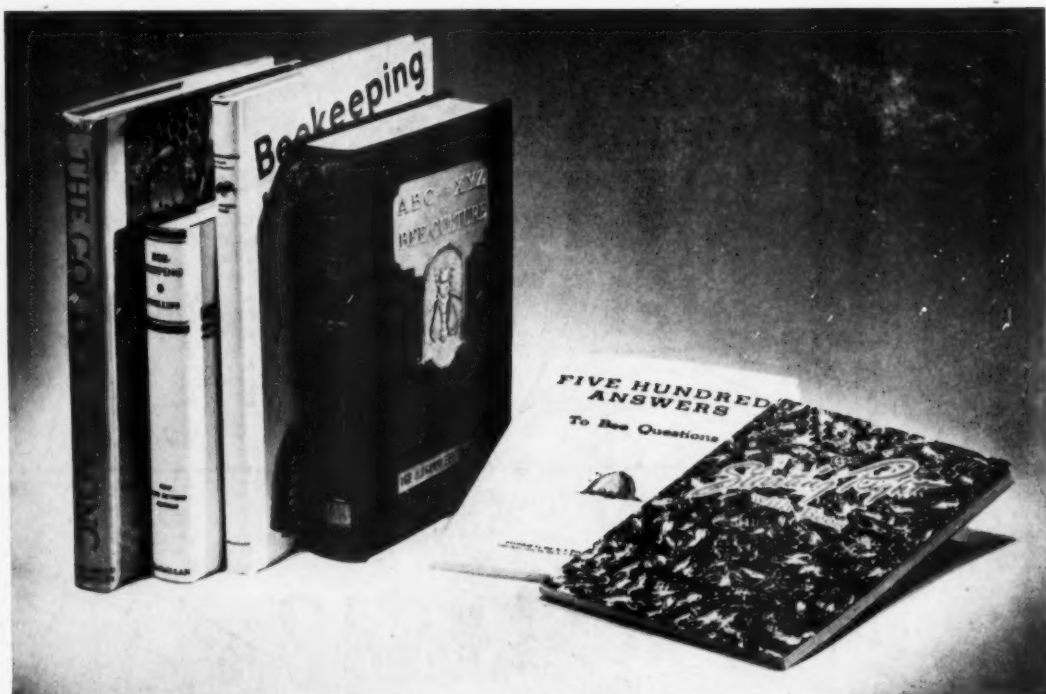
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